



**α alpha laboratories**  
supplying quality to science

## Electrophoresis Systems

*clearly better resolution*

- Injection Moulded Construction
- Cassette Type Electrodes
- Electrical Safety
- Multiple Gel Trays

*The Alpha Laboratories Clarit-E® range of innovative electrophoresis equipment continues to expand, providing you with a wide choice of tools to suit your separation needs.*

# Clarit-E<sup>®</sup>

## Horizontal Gel Systems ... ... clearly better resolution.

- **Injection Moulded Construction** – durable, leak-proof environment for complete safety and long life
- **Cassette Type Electrodes** – inexpensive, easy to replace. Made of 99.99% corrosion resistant, pure platinum
- **Electrical Safety** – lid can be located in one way only. On removal, power is disconnected from the buffer chamber
- **Multiple Gel Trays** – eliminate the need for additional gel tanks

Easy Click Lid Removal



Cassette Type Electrodes can be easily replaced by the user



"Plug and go" gel casting



Casting dams allow gels to be rapidly cast externally while the Clarit-E™ unit is in use for gel running.



Flexicasters allow the casting of varying gel lengths simply by locking the moveable dam. Adjustable feet and level bubble allow gels of uniform thickness to be poured.

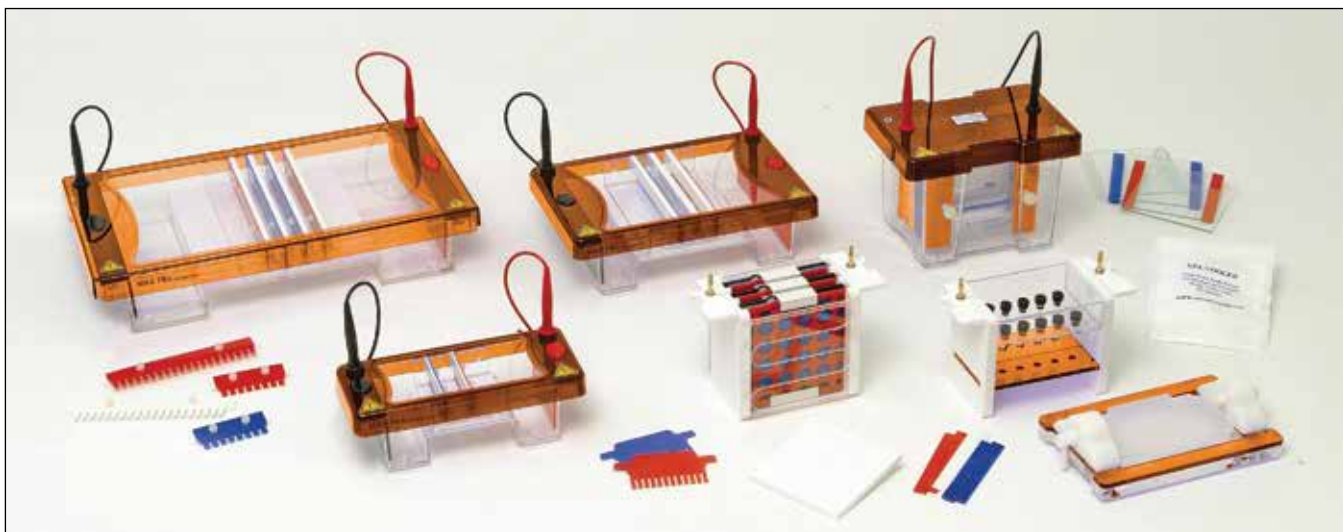


Trays are UV transparent. White PVC platform cover and red loading guides can be optionally applied to enhance Well visibility. Gel trays are free of indentations or casting gate channels, which can interfere with sample progression.



UV transparent Gel Scoops, available for each unit size, offer a safe and easy way to transport gels to a UV Transilluminator.

A complete range of accessories and combs are available. Please see our website for full details.



The Clarit-E series of horizontal gel units offers the most versatile solution for DNA and RNA agarose gel electrophoresis currently available.

All units offer unsurpassed economy of gel and buffer volume, with gel size and sample number versatility. This eliminates the need for multiple gel tanks for changes in gel size or application.

All units contain removable UV transparent trays. Gel size and sample number requirements can be exactly matched in each unit as systems are available with one, two or three tray options (dependent on model). Easy to use, leak-proof 'plug and go' gel casting dams are included as standard to allow gels to be rapidly cast whilst the Clarit-E unit is in use for gel running. Traditional tape casting can be used, should this be preferred.

Although lid connectors are compatible with most major power supplies, adapters are available to provide complete compatibility.



Corrosion resistant gold plated terminals



Retractable connectors compatible with most major power supplies.

## High efficiency horizontal gel cooling



Removable gel table allows a Coolpack to sit above the gel in buffer offering enhanced gel resolution and faster run times.



## Extensive range of combs

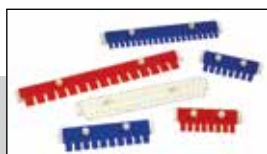
Four thicknesses, colour coded:

- Black:** 0.75mm for ultra resolved bands
- White:** 1mm supplied as standard
- Red:** 1.5mm for maximising sample volume
- Blue:** 2mm for maximising sample volume

Options for sample prep

Options for multichannel pipette loading

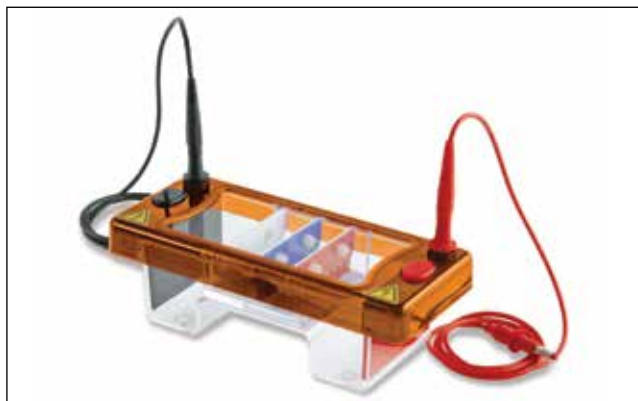
The number of samples can be maximised using combs with higher numbers of teeth.



**CE** All units are CE marked and are in conformity with the relevant CE Safety Directives: 73/23/EEC: LOW VOLTAGE DIRECTIVE: IEC 61010-1:2001. EN 61010-1:2001; 89/336/EEC EMC DIRECTIVE: EN55011 Emissions, EN50082-1 Immunity.

# Laboratory Equipment - Electrophoresis

## Clarit-E Mini Horizontal Gel Tank



- Available with 7 x 7cm, 7 x 10cm or with both gel trays
- Economic low gel and buffer volumes
- Small lab bench footprint

**Typical application:** Designed for quick checks of low to medium numbers of samples.

The Clarit-E Mini is the smallest unit in the range, designed to maximise run economy without compromising versatility as two tray options are available, and combs ranging from preparative up to 16 samples.

Maximum separation distance is 9cm.

### Technical Specifications

|                                    |                               |
|------------------------------------|-------------------------------|
| <b>Gel dimensions (W x L)</b>      | 7 x 7cm, 7 x 10cm             |
| <b>Unit dimensions (W x L x H)</b> | 21 x 9 x 9cm                  |
| <b>Max. sample: 7 x 7cm tray</b>   | 32 samples                    |
| <b>7 x 10cm tray</b>               | 64 samples                    |
| <b>Buffer volume</b>               | 225ml                         |
| <b>Combs available</b>             | 1, 2, 4, 8MC, 8, 10, 12MC, 16 |
| <b>No. of samples</b>              | Choose any two                |
| <b>Thickness</b>                   | 0.75, 1, 1.5, 2mm             |

### Mini Horizontal Gel Tank

| Catalogue Number | Description  |
|------------------|--|
| EL1000           | Mini, 7 x 7cm UV tray, 2 combs, loading guides & dams            |
| EL1100           | Mini, 7 x 10cm UV tray, 2 combs, loading guides & dams           |
| EL1050           | Mini, 7 x 7cm & 7 x 10cm UV tray, 2 combs, loading guides & dams |
| EL1002           | 7 x 7cm UV tray  |
| EL1102           | 7 x 10cm UV tray   |

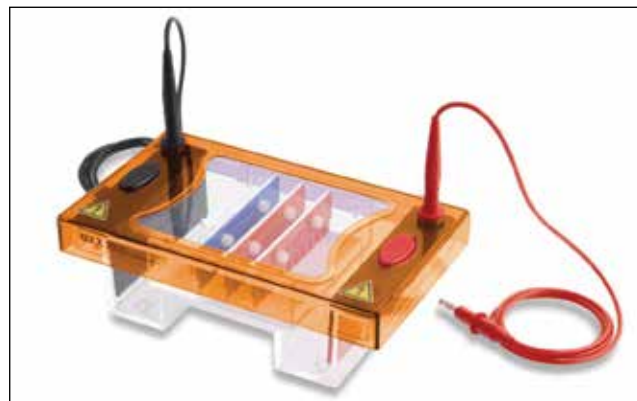


Components of Clarit-E EL1050



Buffer saver blocks are available for all units, which physically reduce the volume of a gel chamber and so reduce buffer requirements, saving cost.

## Clarit-E Midi Horizontal Gel Tank



- Available with 10 x 7cm, 10 x 10cm or with both gel trays
- Run up to 100 samples
- Low buffer volumes
- Ideal for rapid electrophoresis

**Typical application:** Ideal for quick checks of samples from PCR and cloning.

Designed for routine checks of a medium number of samples over short to medium gel lengths. Wider than the Clarit-E Mini it allows more samples to be resolved per gel without a significant increase in buffer or gel volumes.

### Technical Specifications

|                                    |                                    |
|------------------------------------|------------------------------------|
| <b>Gel dimensions (W x L)</b>      | 10 x 7cm, 10 x 10cm                |
| <b>Unit dimensions (L X W x H)</b> | 22 x 12.5 x 9cm                    |
| <b>Max. sample: 10 x 7cm tray</b>  | 50 samples                         |
| <b>10 x 10cm tray</b>              | 100 samples                        |
| <b>Buffer volume</b>               | 300ml                              |
| <b>Combs available</b>             | 1, 2, 4, 8, 10MC, 12, 16, 20MC, 25 |
| <b>No. of samples</b>              | Choose any two                     |
| <b>Thickness</b>                   | 0.75, 1, 1.5, 2mm                  |

### Midi Horizontal Gel Tank

| Catalogue Number | Description  |
|------------------|--|
| EL1200           | Midi, 10 x 7cm UV tray, 2 combs, loading guides & dams           |
| EL1300           | Midi, 10 x 10cm UV tray, 2 combs, loading guides & dams          |
| EL1250           | Midi, 7 x 7cm & 7 x 10cm UV tray, 2 combs, loading guides & dams |
| EL1202           | 10 x 7cm UV tray   |
| EL1302           | 10 x 10cm UV tray  |



Loading Guides allow easy well identification and sample loading.

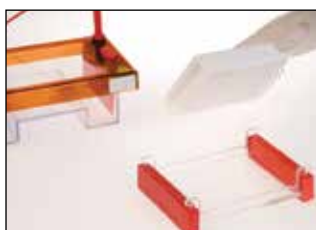


Scoops for safe transfer of gels.



## Clarit-E<sup>®</sup> Midi 96 Horizontal Gel Tank

The Clarit-E Midi 96 is ideal for separation of PCR products, or DNA samples containing only a few bands, from 96-well microtitre plates and thermal cycler blocks.



### Rapid Testing –

96 Wells can be cast simultaneously within a single gel in a precise 96-Well microplate configuration.

**Rapid Loading** – gels can be loaded quickly and easily by 8-channel pipette.

**Extended Separation** – offset layout of the Wells ensures a longer run length per Well.

**High Speed & High Throughput** – 96 samples loaded and separated in 15 to 30 minutes without loss of resolution.

**Easy Sample Identification** – exact configuration of 96-Well microplates allows samples to be quickly and easily identified from original microplates.

| Technical Specifications           |   |
|------------------------------------|---|
| <b>Gel dimensions (W x L)</b>      | 10 x 12cm   |
| <b>Unit dimensions (W x L x H)</b> | 12.5 x 22 x 9cm   |
| <b>Max. sample</b>                 | 96 samples plus 1 or 2 marker lanes<br>192 for Midi 96 Double |
| <b>Buffer volume</b>               | 300ml   |
| <b>Combs available</b>             | 8MC + 1 marker lane   |
| <b>No. of samples</b>              | 8MC + 2 marker lanes  |
| <b>Thickness</b>                   | 1.5, 2mm  |
| <b>Recommended power supply</b>    | EL2730  |

### Midi 96 Horizontal Gel Tank

| Catalogue Number | Description  |
|------------------|--|
| EL1350           | Midi 96, UV tray, comb block with 12 x 8 sample, 1mm thick combs with 1 marker lane, casting dams    |
| EL1355           | Midi 96, UV tray, comb block with 12 x 8 sample, 1.5mm thick combs with 1 marker lane, casting dams  |
| EL1360           | Midi 96, UV tray, comb block with 12 x 8 sample, 1mm thick combs with 2 marker lanes, casting dams   |
| EL1365           | Midi 96, UV tray, comb block with 12 x 8 sample, 1.5mm thick combs with 2 marker lanes, casting dams |

### Accessories and Combs

| Catalogue Number | Description                                |
|------------------|--|
| EL1370           | Comb block for EL1350                      |
| EL1375           | Comb block for EL1355                      |
| EL1380           | Comb block for EL1360                      |
| EL1385           | Comb block for EL1365                      |
| EL1386           | 8-sample, 1mm thick comb, 1 marker lane    |
| EL1387           | 8-sample, 1.5mm thick comb, 1 marker lane  |
| EL1388           | 8-sample, 1.5mm thick comb, 2 marker lanes |
| EL1389           | 8-sample, 1mm thick comb, 2 marker lanes   |
| EL1390           | Midi, 96 Well tray                         |

## Clarit-E<sup>®</sup> Midi 96 Stretch Horizontal Gel Tank



The Clarit-E Midi-96 Stretch Horizontal Gel Systems have all the features of the Midi 96 systems with the additional benefit of an extended run length per Well of up to 3.6cm. This allows greater resolution of samples.

| Technical Specifications           |                                     |
|------------------------------------|-------------------------------------|
| <b>Gel dimensions (W x L)</b>      | 10 x 24cm                           |
| <b>Unit dimensions (W x L x H)</b> | 12.5 x 46 x 8cm                     |
| <b>Max. sample</b>                 | 96 samples plus 1 or 2 marker lanes |
| <b>Buffer volume</b>               | 700ml                               |
| <b>Combs available</b>             | 8MC + 1 marker lane                 |
| <b>No. of samples</b>              | 8MC + 2 marker lanes                |
| <b>Thickness</b>                   | 1, 1.5mm                            |
| <b>Recommended power supply</b>    | EL2730                              |

### Midi 96 Stretch Horizontal Gel Tank

| Catalogue Number | Description  |
|------------------|--|
| EL1310           | Midi 96 Stretch, UV tray, comb block with 12 x 8 sample, 1mm thick combs, casting dams                         |
| EL1320           | Midi 96 Stretch, UV tray, comb block with 12 x 8 sample, 1.5mm thick combs with one marker lane, casting dams  |
| EL1330           | Midi 96 Stretch, UV tray, comb block with 12 x 8 sample, 1mm thick combs with two marker lanes, casting dams   |
| EL1340           | Midi 96 Stretch, UV tray, comb block with 12 x 8 sample, 1.5mm thick combs with two marker lanes, casting dams |
| EL1345           | Midi 96 Stretch Double, UV tray, comb block with 24 x 8 sample, 1mm thick combs, casting dams                  |

### Accessories and Combs

| Catalogue Number | Description                                |
|------------------|--|
| EL1312           | Comb block for EL1310                      |
| EL1322           | Comb block for EL1320                      |
| EL1332           | Comb block for EL1330                      |
| EL1342           | Comb block for EL1340                      |
| EL1386           | 8 sample, 1mm thick comb. 1 marker lane    |
| EL1387           | 8 sample, 1.5mm thick comb. 1 marker lane  |
| EL1389           | 8 sample, 1mm thick comb. 2 marker lanes   |
| EL1388           | 8 sample, 1.5mm thick comb. 2 marker lanes |
| EL1316           | Midi 96 Stretch, Tray                      |

# Laboratory Equipment - Electrophoresis

## Clarit-E® Choice Horizontal Gel Tank



- Three tray options
- Run up to 210 samples
- Low buffer volumes
- Multichannel pipette compatible combs for speed loading

**Typical application:** Ideal for restriction fragment analysis, sample prep or checking of high numbers of samples.

The Clarit-E Choice offers a wide degree of versatility. Three tray options are available allowing the choice of one, two or all three gel length options at the time of purchase. The 15cm total run length allows restriction fragment or other close MW sample bands to be easily separated and identified.

### Technical Specifications

|                                    |  |
|------------------------------------|--|
| <b>Gel dimensions (W x L)</b>      | 15 x 7cm, 15 x 10cm, 15 x 15cm           |
| <b>Unit dimensions (W x L x H)</b> | 26.5 x 17.5 x 9cm                        |
| <b>Max. sample:</b>                |  |
| 20 x 10cm tray                     | 70 samples                               |
| 20 x 20cm tray                     | 140 samples                              |
| 20 x 25cm tray                     | 210 samples                              |
| <b>Buffer volume</b>               | 500ml                                    |
| <b>Combs available</b>             | 1, 2, 4, 10, 10MC, 12, 14MC, 16MC, 18MC, |
| <b>No. of samples</b>              | 20, 28MC 30MC, 35 - Choose any two       |
| <b>Thickness</b>                   | 0.75, 1, 1.5, 2mm                        |

### Choice Horizontal Gel Tank

| Catalogue Number | Description  |
|------------------|--|
| EL1450           | Choice, 15 x 7cm UV tray, 2 combs, loading guides and dams               |
| EL1400           | Choice, 15 x 10cm UV tray, 2 combs, loading guides and dams              |
| EL1500           | Choice, 15 x 15cm UV tray, 2 combs, loading guides and dams              |
| EL1550           | Choice Trio, 15 x 7, 10 & 15cm UV tray, 2 combs, loading guides and dams |
| EL1510           | Choice Trio, 3 x 15 x 15cm UV trays, 2 combs, loading guides and dams    |

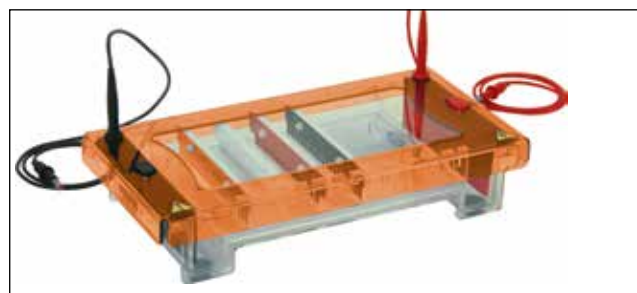
### Accessories

| Catalogue Number | Description       |
|------------------|-------------------|
| EL1452           | 15 x 7cm UV tray  |
| EL1402           | 15 x 10cm UV tray |
| EL1502           | 15 x 15cm tray    |



Clarit-E Choice Trio includes all 3 tray sizes for optimum versatility and value.

## Clarit-E® Choice Stretch Horizontal Gel Tank



- Available with 15 x 20cm and 15 x 25cm gel trays
- Run up to 350 samples
- Multichannel pipette compatible combs for speed loading

**Typical application:** Ideal for higher resolution separations such as separating samples with very similar molecular weights.

The addition of the stretch Choice units increases the flexibility of this popular range of gel tanks. The extended run lengths allow restriction fragments or other close molecular weight sample bands to be easily separated and identified. The Clarit-E Choice stretch gel tanks are ideal for researchers wanting to perform higher resolution separation of more samples over a longer distance. Speed loading is accomplished using 10, 14, 16, 18, 28 or 30 sample multi-channel pipette compatible combs.

### Technical Specifications

|                                    |  |
|------------------------------------|--|
| <b>Gel dimensions (W x L)</b>      | 15 x 20cm, 15 x 25cm                   |
| <b>Unit dimensions (W x L x H)</b> | 17.5 x 41 x 9cm                        |
| <b>Max. sample:</b>                |  |
| 15 x 20cm tray                     | 280 samples                            |
| 15 x 25cm tray                     | 350 samples                            |
| <b>Buffer volume</b>               | 1000ml                                 |
| <b>Combs available</b>             | 1, 2, 4, 10, 10MC, 12, 14MC, 16, 18MC, |
| <b>No. of samples</b>              | 20, 28MC 30MC, 35 - Choose any four    |
| <b>Thickness</b>                   | 0.75, 1, 1.5, 2mm                      |

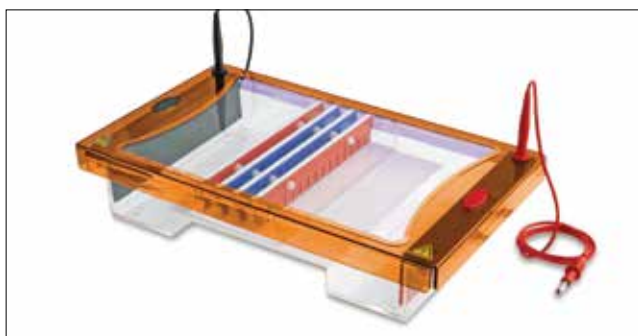
### Choice Stretch Horizontal Gel Tank

| Catalogue Number | Description   |
|------------------|---|
| EL1430           | Choice Stretch 20, 15 x 20cm UV tray, 4 combs, casting dams, loading guides |
| EL1440           | Choice Stretch 25, 15 x 25cm UV tray, 4 combs, casting dams, loading guides |

### Accessories

| Catalogue Number | Description       |
|------------------|-------------------|
| EL1432           | 15 x 20cm UV tray |
| EL1442           | 15 x 25cm UV tray |

## Clarit-E<sup>®</sup> Maxi Horizontal Gel Tank



- Available with 20 x 25cm, 20 x 20cm or 20 x 10cm gel trays
- Run up to 550 samples
- Low buffer volumes
- Ideal for extended separations

**Typical application:** Primarily designed for separating high numbers of samples from PCR or cloning.

The Clarit-E Maxi allows ultra high-resolution separations over extended runs. Tray sizes correspond to standard blotter sizes. It also allows easy sample transfer onto a membrane for further analysis. Multichannel pipette compatible combs facilitate speed-loading.

### Technical Specifications

|                                    |   |
|------------------------------------|---|
| <b>Gel dimensions (W x L)</b>      | 20 x 10cm, 20 x 20cm, 20 x 25cm             |
| <b>Unit dimensions (W x L x H)</b> | 39.5 x 23 x 9cm                             |
| <b>Max. sample:</b>                |   |
| 20 x 10cm tray                     | 200 samples                                 |
| 20 x 15cm tray                     | 350 samples                                 |
| 20 x 20cm tray                     | 450 samples                                 |
| 20 x 25cm tray                     | 550 samples                                 |
| <b>Buffer volume</b>               | 1200ml                                      |
| <b>Combs available</b>             | 1, 2, 4, 10, 16, 20MC, 25, 30, 36, 40MC, 50 |
| <b>No. of samples</b>              | Choose any two                              |
| <b>Thickness</b>                   | 0.75, 1, 1.5, 2mm                           |

### Maxi Horizontal Gel Tank

| Catalogue Number | Description   |
|------------------|---|
| EL1600           | Maxi, 20 x 25cm UV tray, 2 combs, loading guides & dams               |
| EL1620           | Maxi, 20 x 20cm UV tray, 2 combs, loading guides & dams               |
| EL1630           | Maxi, 20 x 15cm UV tray, 2 combs, loading guides & dams               |
| EL1640           | Maxi, 20 x 10cm UV tray, 2 combs, loading guides & dams               |
| EL1660           | Maxi, 20 x 20cm & 20 x 10cm UV tray, 2 combs, loading guides and dams |

### Accessories

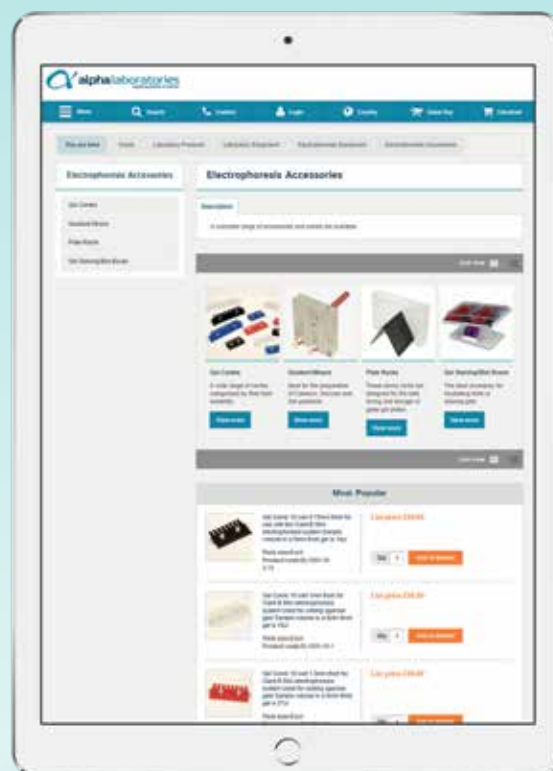
| Catalogue Number | Description       |
|------------------|-------------------|
| EL1642           | 20 x 10cm UV tray |
| EL1632           | 20 x 15cm UV tray |
| EL1622           | 20 x 20cm UV tray |
| EL1602           | 20 x 25cm UV tray |



Casting dams allow gels to be rapidly cast externally while the Clarit-E unit is in use for gel running.

Electrophoresis Equipment  
available online at  
**[www.alphalabs.co.uk](http://www.alphalabs.co.uk)**

Easy Access to All Your  
Accessories



Find an extensive range of gel combs,  
gradient mixers, plate racks etc.

### Order Online for More Benefits

- Easy navigation mega menus and intuitive search
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  - Detailed product information, technical details, images
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  - Payment by Invoice, Credit Card or PayPal
  - Optimised access on PC, tablet or mobile
- 24/7 wherever you are**

## Clarity-E DNA-View Electrophoresis System

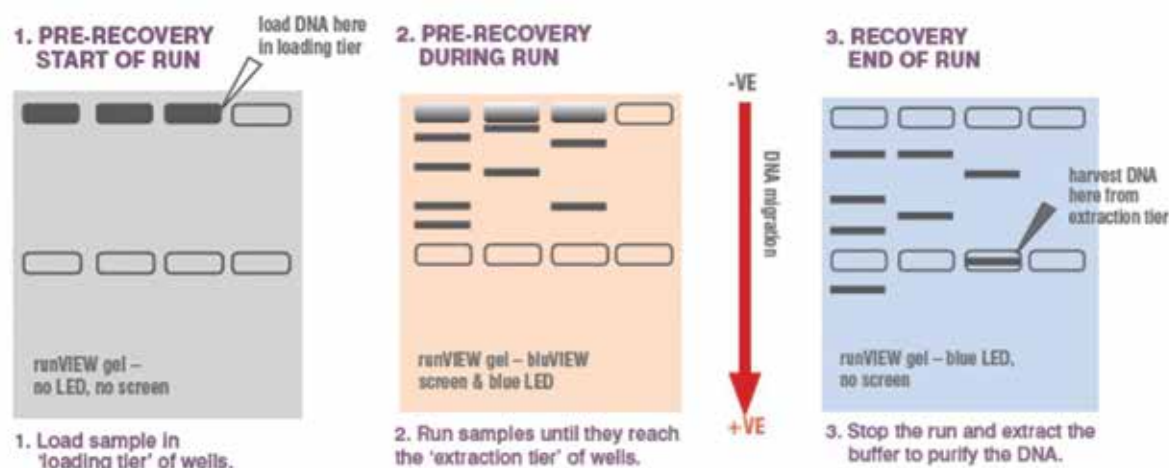
### A Safer Alternative to Traditional Electrophoresis

Traditional electrophoresis methods use a combination of harmful UV light and toxic ethidium bromide to visualise DNA samples in a gel. Intense UV light such as that typically used in transilluminators, can cause skin burns and damage to eyes in a very short exposure time. In addition UV can cause cross-linking of DNA and mutagenesis, thereby reducing cloning efficiency. Ethidium Bromide, though still one of the most widely used DNA stains for electrophoresis, is a known carcinogen and mutagen and should always be used with caution.

Blue LED lights can also be used to cause emission of fluorescence although the wavelength is different to UV, and fluorescence is never as strong as more traditional UV and stain combinations. But with safe proprietary stains, and blue LED illumination, it is possible to visualise DNA gels, without the worry of handling harmful chemicals, or exposure to UV light.

The DNA-View system enables you to do this. What's more, the DNA-View system enables you to see your samples separating in real time, and it can even be used to simplify sample recovery by using a 2 tier Well approach.

Built around the versatile Choice Horizontal Gel system, DNA-View comprises a bluVIEW base station which incorporates the blue LED illuminator and power supply. The base station exactly fits the Choice Gel tank which is supplied with a special lid incorporating a light filter and extractor fan which eliminates condensation to optimise visualisation and resolution during electrophoresis. For completeness, a selection of combs are included suitable for gel resolution or sample preparation.



#### Features

- Versatile, highly compact, self-contained system: for convenience
- Flexible high resolution system: for many different applications
- Integrated tank, power supply and gel illuminator: saves time and space
- Safety for users: no dangerous UV
- Safety for samples: no mutagenesis of DNA, no compromise on cloning efficiency
- Real time visualisation of gel run: no over-runs
- Simplifies DNA elution: simple ethanol precipitation from buffer.
- No need for expensive pre-made gels: lab-cast gels work perfectly and save you money
- Current Choice gel tank users upgrade available: cost-effective solution
- Optional Gel Documentation System with 12.1 megapixel digital camera
- Complete ready-to-use system excluding chemicals and reagents

#### Applications

- Resolution of DNA samples
- Simple DNA recovery
- Track DNA without harmful UV
- Save on time-consuming gel elution techniques
- Teaching electrophoresis

| DNA-View  |   |
|---|---|
| Catalogue Number  | Description   |
| EL1560  | DNA-View system complete with 15 x 7cm gel tray, 1 set of casting dams                        |
| EL1565  | DNA-View system complete with 15 x 10cm gel tray, 1 set of casting dams                       |
| EL1570  | DNA-View system complete with 15 x 15cm gel tray, 1 set of casting dams                       |
| EL1575  | DNA-View system complete with 15 x 7, 15 x 10 and 15 x 15cm gel trays, 3 sets of casting dams |
| EL1555  | DNA-View base station & bluVIEW lid   |
| EL1580  | DNA-View gel documentation hood with 12.1MP camera  |
| EL1585  | DNA View Darkroom viewing hood  |
| All DNA-View systems are supplied with 8 double-sided and 4 extra thick preparatory combs |   |



## DNA-View Stain Compatibility

| DNA-View Stain Compatibility |                                     | Staining Method  |                   |                 |
|------------------------------|-------------------------------------|------------------|-------------------|-----------------|
| Nucleic Acid Stain           | Relative Performance Between Stains | Gel Pre-Staining | Gel Post-Staining | Sample Staining |
| SYBR® Green I (DNA)          | Higher Intensity Bands Observed     | ✓                | ✓                 | ✓               |
| SYBR® Green II (RNA)         | Higher Intensity Bands Observed     |                  | ✓                 | ✓               |
| SYBR® Gold                   | Higher Intensity Bands Observed     | ✓                | ✓                 |                 |
| Midori Green Direct          | Higher Intensity Bands Observed     |                  |                   | ✓               |
| Hydra Green™ Safe DNA Dye    | Higher Intensity Bands Observed     | ✓                | ✓                 |                 |
| HD Green™ DNA Stain          | Higher Intensity Bands Observed     | ✓                | ✓                 |                 |
| runSAFE                      | Higher Intensity Bands Observed     |                  |                   | ✓               |
| SafeView DNA Stain           | Compatible -Visible Bands Observed  | ✓                |                   |                 |
| SYBR® Safe                   | Compatible -Visible Bands Observed  | ✓                | ✓                 |                 |
| Midori Green                 | Compatible -Visible Bands Observed  | ✓                | ✓                 |                 |
| Midori Green Advanced        | Compatible -Visible Bands Observed  | ✓                | ✓                 |                 |
| EtBr                         | Faint Bands Observed*               | ✓                | ✓                 |                 |
| SERVA DNA Stain Clear G      | Faint Bands Observed*               | ✓                |                   |                 |
| HealthView™                  | Faint Bands Observed*               | ✓                | ✓                 |                 |
| GelGreen™                    | Faint Bands Observed*               | ✓                | ✓                 |                 |
| GelRed™                      | Faint Bands Observed*               | ✓                | ✓                 |                 |

\*Compared to the same gel on a UV Transilluminator



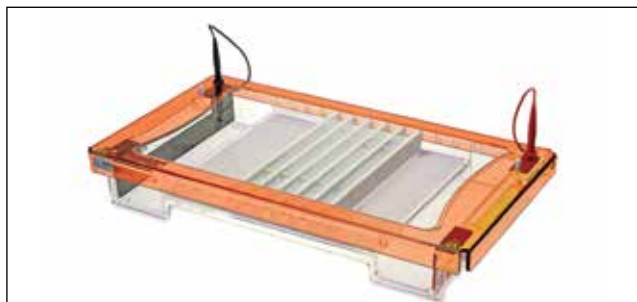
### Technical Specifications

| DNA-View Viewing Dock and System |  |                             |   |
|----------------------------------|--|-----------------------------|---|
| Blue Light                       | 470nm  | Timer                       | 1-999 minutes with alarm                          |
| Voltage/ Resolution              | 25-150V / 1V   | Safety Device               | No load detection                                 |
| Current/ Resolution              | 300mA / 1mA  | Operating temperature       | Ambient to 40°C                                   |
| Power                            | 30 W   | Dimensions                  | 293 x 220 x 80 mm                                 |
| Operating Mode                   | Constant Voltage   | Rated Voltage               | 100-240V, 50/60Hz                                 |
| Gel Dimensions (W x L)           | 15 x 7, 15 x 10 & 15 x 15 cm   | bluVIEW Lid Design          | Orange (EtBr)<br>Amber<br>(runSAFE & SYBR stains) |
| Built-in extractor fan           | Powered by base unit.  | Unit dimensions (w x d x h) | 26.5 X 17.5 X 9cm                                 |
| Buffer volume                    | 500ml  |                             |   |
| Combs included                   | 2x Comb 1 & 2 sample, 1mm thick<br>2x Comb 4 & 16MC sample, 1mm thick<br>4x Comb 20 & 28MC sample, 1mm thick<br>2x Comb 4 sample 2 Marker, 3mm thick<br>2x Comb 6 sample 2 Marker, 3mm thick |                             |   |

N.B. Combs cannot be changed with this system

# Laboratory Equipment - Electrophoresis

## Clarit-E<sup>®</sup> Screen



- Available with 26 x 16, 26 x 24 and 26 x 32cm or all three gel trays
- Run up to 672 samples
- Low buffer volumes
- Multichannel pipette compatible combs for speed loading

**Typical application:** Ideal for rapid screening of very large numbers of clonal or PCR samples or extended high resolution separations.

The Clarit-E Screen allows loading and analysis of exactly seven 96 Well format micro titre plates.

The large gel run length of up to 32cm also allows resolution of samples over a long distance for separation of complex sample bands such as in restriction fragment analysis. Buffer recirculation ports are included to allow enhanced resolution over extended runs.

### Technical Specifications

|                                    |                                 |
|------------------------------------|---------------------------------|
| <b>Gel dimensions (W x L)</b>      | 26 x 32cm, 26 x 24cm, 26 x 16cm |
| <b>Unit dimensions (W x L x H)</b> | 50 x 28 x 9cm                   |
| <b>Max. sample:</b>                |                                 |
| 20 x 10cm tray                     | 672 samples                     |
| 20 x 20cm tray                     | 504 samples                     |
| 20 x 25cm tray                     | 336 samples                     |
| <b>Buffer volume</b>               | 1400ml                          |
| <b>Combs available</b>             | 28M, 56MC                       |
| <b>No. of samples</b>              | Choose any six                  |
| <b>Thickness</b>                   | 0.75, 1, 1.5, 2mm               |

### Screen Horizontal Gel Tank

| Catalogue Number | Description   |
|------------------|---|
| EL1800           | Screen, 26 x 32cm UV tray, 6 combs, loading guides & dams                   |
| EL1820           | Screen, 26 x 24cm UV tray, 6 combs, loading guides & dams                   |
| EL1840           | Screen, 26 x 16cm UV tray, 6 combs, loading guides & dams                   |
| EL1860           | Screen, 26 x 16, 24 & 32cm UV tray, 6 combs, loading guides and flexicaster |

### Accessories

| Catalogue Number | Description       |
|------------------|-------------------|
| EL1802           | 26 x 32cm UV tray |
| EL1822           | 26 x 24cm UV tray |
| EL1842           | 26 x 16cm UV tray |



Clarit-E Choice Trio includes all 3 tray sizes for optimum versatility and value.

## Clarit-E<sup>®</sup> Fast Mini



- A convenient self-contained solution for routine agarose gel electrophoresis
- Ultra compact
- Low buffer and gel volumes
- Multichannel pipette compatible combs for speed loading

**Typical application:** For routine, rapid checking of samples.

Perform gel casting, running and analysis in the same unit. The parallel electrode arrangement allows ultra efficient current transfer, enabling resolution to be completed within 30 minutes. The UV transparent base allows direct viewing on a UV Transilluminator with no need for time-consuming transfer and potential gel damage. Dual comb slots.

### Technical Specifications

|                                    |                       |
|------------------------------------|-----------------------|
| <b>Gel dimensions (W x L)</b>      | 10 x 8cm              |
| <b>Unit dimensions (W x L x H)</b> | 15 x 15 x 4cm         |
| <b>Max. sample capacity</b>        | 40 samples            |
| <b>Buffer volume</b>               | 50ml                  |
| <b>Combs available</b>             | 1, 4, 8, 12, 16, 20MC |
| <b>No. of samples</b>              | Choose any two        |
| <b>Thickness</b>                   | 1, 1.5mm              |

### Fast Mini Horizontal Gel Tank

| Catalogue Number | Description                                       |
|------------------|---|
| EL1700           | Fast Mini, 10 x 8cm, 2 combs 1.5mm & casting dams |
| EL1702           | Fast Mini casting dams, pack of 2                 |

## Clarit-E Comet Assay Tank



This Comet Assay Tank is available for use with 20 standard microscope slides to study single cell gel electrophoresis (SCGE), a technique made popular by drug toxicology and carcinogenesis studies for the detection and quantification of DNA damage in cells.

Each tank's robust construction from ebony acrylic ensures that cells remain free of exposure to background light and DNA damage during electrophoresis, while a cooled central platform provides a convenient surface for slide preparation and control of slide temperature during the assay. Following electrophoresis DNA damage may be measured using Comet Assay scoring software.

- For Single Cell Gel Electrophoresis
- Minimise exposure to light and reduce background DNA damage
- High efficiency cooling for enhanced resolution

### Single Cell Gel Electrophoresis

Initially back in the 1980's SCGE was used to quantify double-stranded DNA breakages in single cells exposed to irradiation. The technique has since been adapted to analyse specific DNA lesions and repair processes.

Cells are exposed to a genotoxic insult, such as ionising radiation, which results in strand breakage of supercoiled duplex DNA, thereby reducing the size of the large genomic DNA molecules. Following this treatment, cells are suspended within low melting point agarose which is smeared on to a microscope slide to create a thin layer in which the cells are embedded. Cellular protein is then removed by lysis in detergent, and the alkaline conditions promote the unwinding of the DNA in readiness for electrophoresis. The DNA is electrophoresed, stained and then analysed using software.

The electrophoresis draws out the DNA fragments and the genomic DNA takes on the appearance of a comet as its negatively charged broken ends and fragments migrate towards the anode during electrophoresis. The head of the comet is mainly composed of intact genomic DNA, whereas any fragmented or damaged DNA is concentrated within and towards the tail. Microscopy imaging is used to measure DNA fluorescence upon staining.

### Technical Specifications

|                                |                      |
|--------------------------------|----------------------|
| Unit dimensions (W x L x H)    | 31 x 34 x 9cm        |
| Max. slide capacity            | 20                   |
| Buffer volume                  | 1000ml               |
| Recommended Running Conditions | 25V/300mA for 1 hour |

### Comet Assay Tank

| Catalogue Number | Description                                   |
|------------------|---|
| EL1920           | Comet assay tank for SCGE for up to 20 slides |

## Find All Your Electrophoresis Reagents On Our Website

- Agarose
- DNA Markers
- RNA Markers
- PreCast Gels

Find out more about these, plus our specialist research reagents, primary and secondary antibodies at [www.alphalabs.co.uk/research](http://www.alphalabs.co.uk/research)

# Clarit-E®

## Vertical Electrophoresis Systems ... ... clearly better resolution.

- **Rapid Gel Casting and Loading** – ensures trouble-free gel set-up
- **Versatile** – modules for slab gel, 2-D electrophoresis and electroblotting using a single universal buffer tank

**Simple, rapid, leak-proof gel casting** (unique sliding gates gel clamping system is only applicable for Mini vertical tank)



Insert glass plates and slide gates to create efficient seal



Transfer to casting base and tighten cams

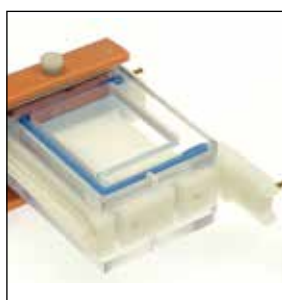


Insert gel solution and comb and allow to polymerise



Transfer to tank, fill with buffer and run

### Pressure clamping frame



On the Mini gel tank a unique single-piece pressure frame offers the option of rapid single screw per side or new screw-free set up. Even pressure and buffer contact across the plates results in even sample migration and efficient heat removal from the gel. Glass plates are 2mm thick for Mini and 4mm thick for Mini Wide and Maxi tanks to reduce breakage.

### Run up to four gels at a time



While most vertical gel units can run only one or two gels, the Clarit-E Mini units can run one, two or up to four gels at any time using a triple glass plate sandwich.

### Effective buffer cooling



A simple to use cooling pack system ensures enhanced resolution without costly and time-consuming additional equipment. No chiller, tap or obstructing connecting leads are required. The cooling pack is simply pre-chilled in a freezer and placed in the gel tank. Additionally, the use of cooling packs reduces buffer volume.

### Extensive range of combs

Up to five thicknesses, colour coded:

- Purple:** 0.5mm for ultra resolved bands
- Black:** 0.75mm for ultra resolved bands
- White:** 1mm supplied as standard
- Red:** 1.5mm for maximising sample volume
- Blue:** 2mm for maximising sample volume

Options for sample prep

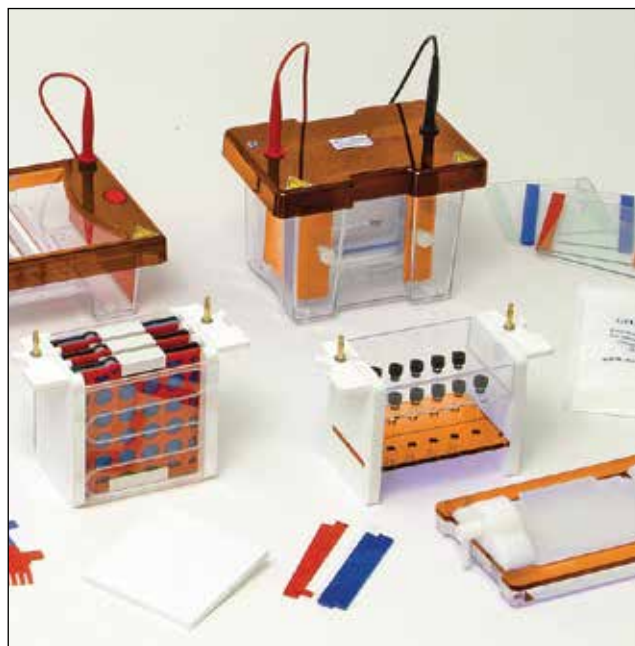
Options for multichannel pipette loading

The number of samples can be maximised using combs with higher numbers of teeth.





The Clarit-E range of Vertical Gel Units combines ease of use with high resolution separations. Three sizes, Mini 10 x 10cm, Mini Wide 20 x 10cm and Maxi 20 x 20cm, share a host of common features including a guaranteed leak-proof seal required for trouble-free, rapid and uncomplicated gel casting. Utilising a built-in gel running module eliminates time-consuming transfer of glass plates following casting - a process which can cause gel damage and misalignment. Glass plates with permanently bonded spacers, guarantee perfect spacer alignment. The glass plate sandwich is simply inserted between pressure bars and a minimum of screws tightened. For the Clarit-E Mini there are no screws to tighten as the unique gel clamping system ensures fast set up times and guaranteed leak-proof gel casting. Following polymerisation, the gel running module is simply inserted into the gel tank for electrophoresis.



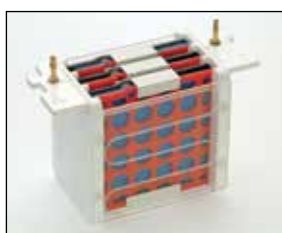
## Interchangeable Modules



**Running Module**



**2D Module**



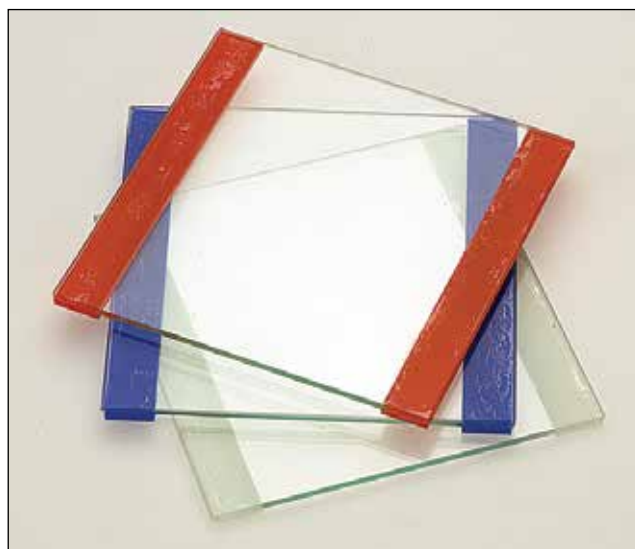
**Blotting Module** with double-hinged cassettes for added convenience.



Corrosion resistant, 99.99% pure platinum electrodes and gold plated terminals – easily replaced, ensuring minimum repair times.



Retractable connectors compatible with most major power supplies.



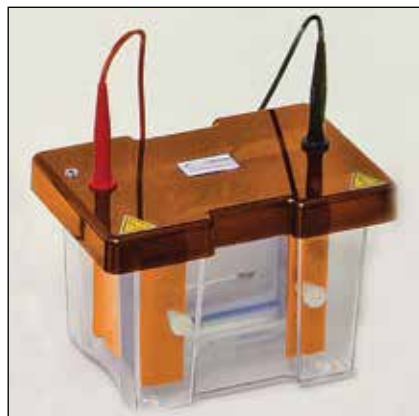
A complete range of accessories and combs are available. Please visit our website for full details.



All units are CE marked and are in conformity with the relevant CE Safety Directives: 73/23/EEC: LOW VOLTAGE DIRECTIVE: IEC 61010-1:2001. EN 61010-1:2001; 89/336/EEC EMC DIRECTIVE: EN55011 Emissions, EN50082-1 Immunity.

## Clarit-E Mini Vertical Gel Tank

- Injection Moulded construction
- Compatible with all 8 x 10 and 10 x 10cm precast gels
- Low buffer volumes
- Run up to 4 gels

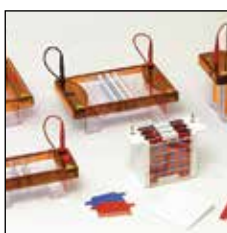


*Typical application: Mini SDS PAGE, Native PAGE, Gradient, Second dimension and Nucleic acid separations.*

The preferred unit for routine mini protein electrophoresis, the Clarit-E Mini is constructed using the latest injection moulding manufacturing techniques. This gives a high quality, low cost product with unsurpassed finish, durability and strength.

The running insert has the option of sliding gates or a single screw per side for clamping gels.

Accessory electroblotting and tube gel modules are available which use the same outer tank and lid. See Modular systems for further information.



Clarit-E Mini and optional accessories



Internal running module



Gel loading guides

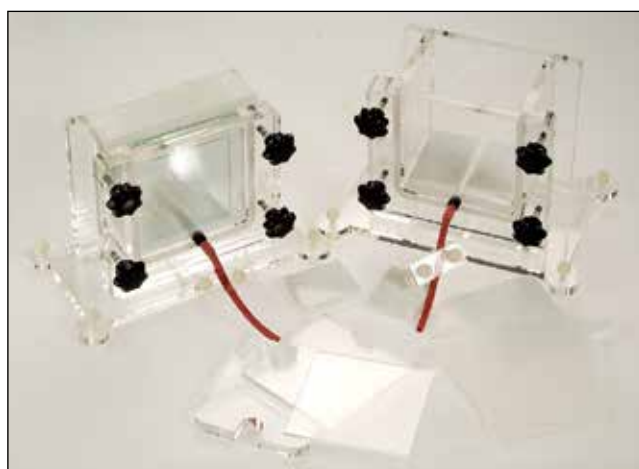
### Technical Specifications

|                                    |   |
|------------------------------------|---|
| <b>Plate dimensions</b>            | 10 x 10cm                                 |
| <b>Gel dimensions (W x L)</b>      | 7.5 x 8cm                                 |
| <b>Unit dimensions (W x D x H)</b> | 19 x 13 x 15cm                            |
| <b>Max. sample capacity</b>        | 80 samples per unit<br>20 samples per gel |
| <b>Buffer volume</b>               | Min 250ml; Max 1200ml                     |
| <b>Combs available</b>             | 1, 5, 8MC, 9, 10, 12, 16MC, 20            |
| <b>No. of samples</b>              | Choose any two                            |
| <b>Thickness</b>                   | 0.75, 1, 1.5, 2mm                         |

### Mini Vertical Gel Tank

| Catalogue Number | Description  |
|------------------|--|
| EL2004           | Mini, 10 x 10cm includes glass plates with bonded 1mm thick spacers, 2 combs, cooling pack, dummy plate  |
| EL2000           | Mini, 10 x 10cm includes glass plates with bonded 1mm thick spacers, 2 combs, cooling pack, dummy plate and casting base                               |
| EL2012           | Mini, 10 x 10cm includes glass plates with bonded 1mm thick spacers, 2 combs, cooling pack, dummy plate, casting base, external casting upstand        |
| EL2190           | Mini Quad, 10 x 10cm includes 4 glass plates with bonded 1mm thick spacers, 4 combs, cooling pack, dummy plate, casting base, external casting upstand |

## Clarit-E Multiple Mini Gel Casting



- Integral levelling feet and level bubble
- Standard and gradient gels can be poured
- Choice of 2, 6, 12 or 24 gel casting models

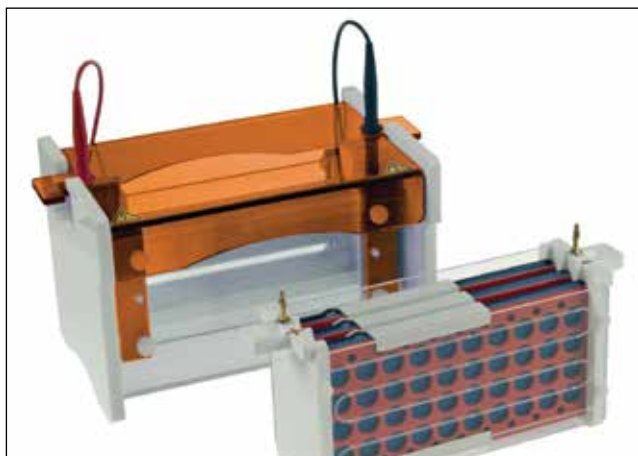
Advance casting of multiple mini gels can help to achieve consistent results between runs. These multiple gel casting systems are tailored for use with Clarit-E Mini vertical electrophoresis units; with three models of 2, 6, 12 and 24 gel capacities. Fewer gels can be poured if required using the acrylic saver blocks supplied with each system.

The fixed hinged clamps allows the gel sandwich to be adjusted to the correct pressure irrespective of the number or the thickness of gels being poured. Separation sheets allow the easy separation of the glass plates after pouring.

### Multiple Mini Gel Casting

| Catalogue Number | Description                                  |
|------------------|--|
| EL2018           | 2 Gel Caster for 8 x 10cm or 10 x 10cm gels  |
| EL2166           | 12 Gel Caster for 8 x 10cm or 10 x 10cm gels |

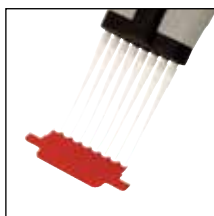
## Clarit-E Mini Wide Vertical Gel Tank



- Offers the capacity of two mini gels on a single gel

- Optional low or high buffer volumes

**Typical application:** Mini SDS PAGE, Native PAGE, Gradient, Second dimension and Nucleic acid separations.



The Clarit-E Mini Wide vertical gel unit with a gel width of 20cm effectively allows double the number of samples to be resolved as the Clarit-E Mini unit. This allows consistency of sample comparison on a single gel and is designed for those with greater than 20 samples to compare and resolve.

Both the Mini Wide and the Maxi system use 4mm thick glass plates which reduce breakage and have bonded spacers for added convenience. A wide range of accessories is available allowing many techniques to be performed using the same unit. Prep combs can be used to maximise sample loading and recovery.

Uses same combs as Maxi systems

| Technical Specifications    |  |
|-----------------------------|--|
| Plate dimensions            | 20 x 10cm                                  |
| Gel dimensions (W x L)      | 18 x 8cm                                   |
| Unit dimensions (W x D x H) | 26 x 16 x 16cm                             |
| Max. sample capacity        | 192 samples per unit<br>48 samples per gel |
| Buffer volume               | Min 600ml; Max 2800ml                      |
| Combs available             | 1, 5, 10, 18MC, 24, 30, 36MC, 48           |
| No. of samples              | Choose any two                             |
| Thickness                   | 0.75, 1, 1.5, 2mm                          |

| Mini Wide Gel Tank |   |
|--------------------|---|
| Catalogue Number   | Description   |
| EL2083             | Mini Wide, 20 x 10cm 2 sets of glass plates with bonded 1mm thick spacers, 2 combs, cooling pack  |
| EL2084             | Mini Wide, 20 x 10cm 2 sets of glass plates with bonded 1mm thick spacers, 2 combs, cooling pack inc. casting base                              |
| EL2086             | Mini Wide, 20 x 10cm 2 sets of glass plates with bonded 1mm thick spacers, 2 combs, cooling pack inc. casting base and external casting upstand |

## Clarit-E Maxi Z Vertical System

- For 20x20cm gels
- More Gels – run 2-4 gels simultaneously in standard 2-gel Maxi Z and 4-gel Maxi Z Tetrad systems

- Customise your system for second-dimension runs with 18cm IPG strips and gels using the IEF conversion kit

- Utilise modular inserts with the same universal tank and lid to extend the application of your standard Maxi Z unit to create a complete 2-D or blotting system



The new Vertical Maxi Z System is the latest product innovation for large format vertical gel electrophoresis. Designed to perform a variety of separations, including first and second-dimension SDS-PAGE, native, preparative, gradient and high-resolution nucleic acid electrophoresis, plus capillary tube gel IEF and electro-blotting, the Maxi Z is one of the most versatile maxi vertical systems available.

By introducing innovative, new vertical screw-clamp technology within the PAGE insert only four screws are now necessary to secure up to four 20 x 20cm gels.

Choose any two combs

| Technical Specifications           |                              |   |   |
|------------------------------------|------------------------------|---|---|
| Number of gels                     | 1 - 4                        | Total Volume Inner Buffer Chamber                           | 192 samples, 48 samples per gel                           |
| Handcast gels                      | Using glass plates and combs | Total buffer Volume   | 5.3L (2 gels)<br>4.8L (4 gels)                            |
| Plate Dimensions (W x H x T)       | 20 x 20cm x 0.4cm            | Standard run time for SDS-PAGE Without Cooling With Cooling | 4-5 hours<br>3-4 hours                                    |
| Standard Spacer Dimensions (W x H) | 2 x 20cm                     | Recommended power supplies                                  | EV233 for IEF;<br>EL2740 for PAGE;<br>EL2750 for blotting |
| IPG Spacer Dimensions (W x H)      | 0.6 x 20cm                   | Unit Dimensions (W x D x H) Weight                          | 30x18x27cm<br>2.5Kg                                       |

| Maxi Z Vertical System for 20 x 20cm gels |  |
|---|--|
| Catalogue Number                          | Description  |
| EL2100Z                                   | Maxi Z, 20 x 20cm Dual with Glass Plates with bonded 1mm thick spacers, 2 combs, cooling coil, dummy plate and Casting Base                                |
| EL2102Z                                   | Maxi Z, 20 x 20cm Dual, 2 sets of Glass Plates, 1mm thick bonded Spacers, 2 combs, cooling coil, dummy plate; includes caster and External casting upstand |
| EL2120Z                                   | Maxi Z, 20 x 20cm Dual vertical system with Glass plates, 2 combs, cooling coil (No casting Base)  |
| EL2110Z                                   | 20 x 20cm Dual Casting Base  |
| EL2179Z                                   | IEF conversion kit for 18cm IPG strips and tube gels   |
| EL2177Z                                   | Pair notched 20 x 20cm glass plates with 6mm wide spacers to run IEF strips  |

# Laboratory Equipment - Electrophoresis

## Clarit-E<sup>®</sup> Maxi Plus for Second Stage 2-D

The 26cm active gel width provides a large gel area to resolve large IEF strips. In combination with the IEF system, this offers a complete package for 2-D electrophoresis. The unit utilises the Clarit-E advanced design features to provide convenient ease of use with high resolution separations.



Rapid set up cooling retains resolution in extended separations and also saves on buffer volume without affecting run quality. Four gels can be resolved per run. A wide range of accessories are available to allow easy transition between 2-D and standard vertical electrophoresis techniques. In particular different types of 2-D comb allow a wide degree of versatility in sample selection and gel set-up.

### Technical Specifications

|                                    |   |
|------------------------------------|---|
| <b>Unit dimensions (W x H x D)</b> | 36 x 33 x 18cm                          |
| <b>Unit dimensions (W x L)</b>     | 30 x 22cm                               |
| <b>Gel dimensions (W x L)</b>      | 28 x 20cm                               |
| <b>Max. sample</b>                 | 300 samples per run; 75 samples per gel |
| <b>Buffer volume</b>               | Min 1800ml, Max 8400ml                  |
| <b>Combs available</b>             | 1, 2, 4, 28MC, 56MC, 75                 |
| <b>No. of samples</b>              |   |
| <b>Thickness</b>                   | 0.25, 0.35, 0.5, 1, 1.5, 2.0mm          |

### Maxi Plus for Second Stage 2-D

| Catalogue Number | Description  |
|------------------|--|
| EL2390           | Maxi Plus, 30 x 22cm Dual with Glass plates & bonded 1.5mm spacers, 2 x 28 sample combs, 2 combs, cooling pack, dummy plate                |
| EL2395           | Maxi Plus, 30 x 22cm Dual with Glass plates & bonded 1.5mm spacers, 2 x 28 sample combs, 2 combs, cooling pack, dummy plate & casting base |
| EL2334           | Maxi Plus Blot Insert - includes 3 cassettes and 6 fibre pads  |
| EL2318           | Dual Caster - Maxi Plus  |

## Clarit-E<sup>®</sup> DNA Sequencing Unit

- Run up to 96 samples
- Enhanced gel heat homogenisation
- Variable low or high buffer volumes
- 20 x 50cm or 33 x 45cm formats

**Typical application:** DNA Sequencing, 2-D analysis, Micro-satellite analysis, DNA fingerprinting, Gel shift assays, Single-Strand Conformation Polymorphism (SSCP), Heteroduplex and Oligonucleotide analysis.

Ideal for a variety of large format vertical gel applications, these units offer advanced features for enhancing gel resolution and ease of use, essential when handling gels of this size. Each unit contains ultra soft silicone seals for easy plate sealing and trouble-free runs, even over extended run times.

Resolution is enhanced by using an aluminium heat sink plate, which is essential for even sample migration.

Added convenience is provided by a removable lower buffer tank and upper buffer drainage tap.



Special buffer chambers allow either low buffer volumes to be used for economy or high buffer volumes to be used for extended runs.

A wide range of interchangeable comb and spacer options allows a large number of techniques to be easily accomplished.

### Technical Specifications

|                                      |  |
|--------------------------------------|--|
| <b>Plate dimensions (W x L)</b>      | EL2560 20 x 50cm<br>EL2580 33 x 45cm                         |
| <b>Max. sample capacity</b>          | EL2560 48 samples<br>EL2580 96 samples                       |
| <b>Buffer volume</b>                 | EL2560 Min 500ml, Max 1000ml<br>EL2580 Min 800ml, Max 2000ml |
| <b>Combs available: No. of teeth</b> | 24, 48, 80, 96   |
| <b>Thicknesses</b>                   | 0.25, 0.35, 1, 1.5mm   |

### DNA Sequencing Unit

| Catalogue Number | Description  |
|------------------|--|
| EL2560           | DNA Sequencing Unit, 20cm wide, Glass plates, 0.35mm spacers, 48 sample comb |
| EL2580           | DNA Sequencing Unit, 33cm wide, Glass plates, 0.35mm spacers, 48 sample comb |
| EL2594           | Fan heater Sensor Lit for DNA Sequencing Unit EL2560 & EL2580                |



## Clarit-E<sup>®</sup> Isoelectric Focusing



- For IEF strip and gel applications
- Large cooling platform area
- Pick and place easy to position electrodes
- Grid for accurate electrode alignment

The IEF system has been designed to allow the full range of IEF flat bed electrophoresis techniques. These include wick based electrophoresis, precast horizontal IEF gel electrophoresis, hand cast horizontal IEF Gel electrophoresis and Iso Electric focusing using IEF strips. The unit includes enhanced cooling over a large platform which offers increased strip capacity and gel area.

Uniform cooling of the platform is achieved using a large ceramic plate which can be connected to any standard chiller via quick fit connectors for enhanced gel or strip cooling.



### Technical Specifications

|                             |                |
|-----------------------------|----------------|
| Max strip length            | 26cm           |
| Max. gel dimensions         | 26 x 26cm      |
| Unit dimensions (W x D x H) | 55 x 35 x 10cm |

### Isoelectric Focusing

| Catalogue Number | Description                                    |
|------------------|--|
| EL7000           | Flatbed IsoElectric Focusing System, 26 x 26cm |
| EL7010           | Chiller  |

## Clarit-E<sup>®</sup> Modular Systems



- Economy of bench space and cost
- Enhanced reproducibility
- Simple to use casting
- Rapid cooling set-up

The Clarit-E range of Modular Vertical Gel Systems allow multiple electrophoresis techniques to be performed in the same unit. Using the same main tank and lid, three different inserts are interchangeable for slab gel, tube gel and electroblotting techniques. These systems are available in three size options, Mini 10 x 10cm, Mini Wide 20 x 10cm and Maxi 20 x 20cm and are available as individual, combination or complete modular systems. Combination and modular systems offer maximum value and space and have the added benefit of increased consistency, which results from using the same universal base and lid.



# Laboratory Equipment - Electrophoresis

## Clarit-E Mini, Mini Wide & Maxi complete Modular Systems

These systems include all modules and accessories required for Slab Gel Electrophoresis, 2-D Electrophoresis and Electroblotting. The central component is the Clarit-E Mini, Mini Wide or Maxi Vertical unit. These include a rapid and intuitive casting system, enhanced and easy to set up cooling system and have increased capacity – the Mini can run up to four gels per run. In addition, the Clarit-E Tube gel module is capable of resolving up to 10 first dimension gels and the Electroblotting module has a 3-blot capacity.

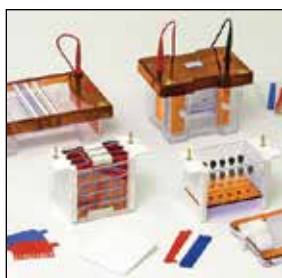
*Complete Modular Systems include: Vertical tank with gel running module, 2x notched glass plates, 2x plain glass plates with bonded spacers, dummy plate, 2x combs, casting base, silicone mat, cooling pack, running module for tube gels, capillary tubes, blanking plugs, 2-D combs, spacers, electroblotting module, 3x compression cassettes and 6x fibre pads.*

## Clarit-E 2-D Complete Systems

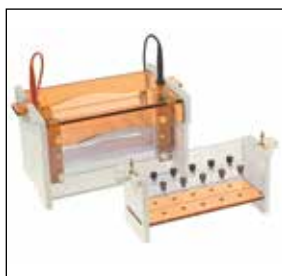
- Rapid set-up electrofocusing
- 10-tube capacity
- Extended accessory range
- Enhanced cooling features

The Clarit-E 2-D Systems include both modules required for Slab Gel and First Dimension Electrophoresis and accessories, to provide a complete Mini, Mini Wide or Maxi 2-D system. The Tube Gel Module includes a rapid release gasket for easy tube extraction. Focusing can be accomplished in as little as three hours in the Mini Unit. Disposable capillary tubes are included for added convenience, plus 2-D combs and spacers, which are colour coded according to thickness for easy identification.

*Complete 2-D System comprising: Vertical tank with gel running module, 2x notched glass plates, 2x plain glass plates with bonded spacers, dummy plate, 2x combs, casting base, silicone mat, cooling pack, running module for tube gels, capillary tubes, blanking plugs, 2-D combs and spacers.*



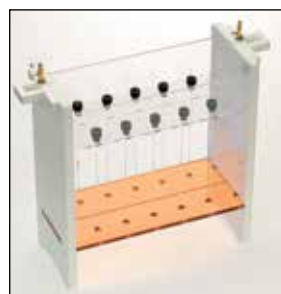
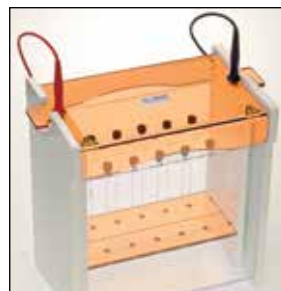
Modules included in the Clarit-E Maxi 2-D system



Modules included in the Clarit-E Mini Wide 2-D system

## Clarit-E Tube Gel Units, Inserts and Accessories

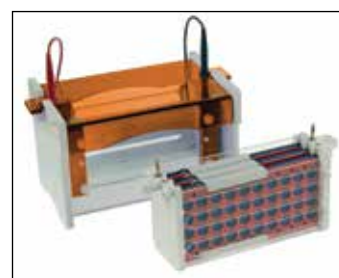
These stand-alone, complete units for first dimension capillary/tube gel electrophoresis are available in 3 sizes, Mini 10 x 10cm, Mini Wide 20 x 10cm and Maxi 20 x 20cm formats. Units are interchangeable with Clarit-E slab gel and electroblotting inserts.



*Clarit-E Tube Gel Units comprise tank and lid, glass capillary tubes, blanking ports and cooling pack.*

## Clarit-E Modular Electroblotting

- Hinged cassettes
- 3-blot capacity
- High intensity electrodes
- Rapid cooling set-up



The Clarit-E Electroblotting Systems include both modules required for Slab Gel Electrophoresis and Electroblotting and accessories, to provide a complete Mini, Mini Wide or Maxi gel casting, running and electroblotting system.

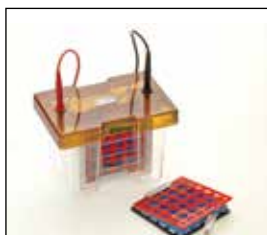
A high intensity current is generated by coiled platinum electrodes. These in conjunction with the advanced cooling features allow rapid electroblotting in as little as one hour.

*Clarit-E Modular electroblotting system comprises: Vertical tank with gel running module, 2x notched glass plates, 2x plain glass plates with bonded spacers, dummy plate, 2x combs, casting base, silicone mat, cooling pack, electroblotting module, 3x compression cassettes and 6x fibre pads.*

## Clarit-E® Electroblotting Units

- Ideal for Western blotting of proteins
- Open design, rigid cassettes for maximum current transfer

These stand-alone, complete units for electroblotting, Mini, Mini Wide and Maxi formats, include Clarit-E tank and lid, electroblotting insert, cassettes and fibre pads. Units are interchangeable with Clarit-E slab and tube gel inserts. Hinged rigid cassettes allow rapid set up and convenience and ensure even contact between the gel and membrane is maintained.



### Technical Specifications

| Unit dimensions (W x D x H) | Mini      | 19 x 13 x 15cm  |
|-----------------------------|-----------|---|
|                             | Mini Wide | 26 x 16 x 16cm  |
|                             | Maxi      | 26 x 16 x 28cm  |
| Max. sample capacity        | Mini      | Slab 80 samples, 20 samples/gel, Tube - 10 tubes; Blot - 3 blots  |
|                             | Mini Wide | Slab 192 samples, 48 samples/gel, Tube - 10 tubes; Blot - 3 blots |
|                             | Maxi      | Slab 192 samples, 48 samples/gel, Tube - 10 tubes; Blot - 3 blots |
| Buffer volume               | Mini      | Min 250ml; Max 1200ml   |
|                             | Mini Wide | Min 600ml; Max 2800ml   |
|                             | Maxi      | Min 1200ml; Max 5600ml  |

### 2-D and Electroblotting Modular Systems

| Mini      | Mini Wide | Maxi       | Description   |
|-----------|-----------|------------|---|
| EL2200    | EL2250    | EL2300Z    | Complete Electrophoresis System includes tube gel, blotting and vertical system |
| EL2320    | EL2330    | EL2340Z    | Complete 2-D Electrophoresis includes tube and vertical system                  |
| EL2026    | EL2096    | -          | Tube Gel Unit, with capillary tubes, blanking ports and cooling pack            |
| EL2028    | EL2098    | EL2128Z    | Tube Gel Insert includes glass tubes and blanking ports                         |
| EL2030    | EL2030    | EL2130     | Capillary Tubes 1mm diameter  |
| -         | -         | EL2132     | Capillary Tubes 1.5mm diameter  |
| EL2032    | EL2032    | EL2032     | Capillary Blanking Ports  |
| EL2400    | EL2450    | EL2500Z    | Complete Blotting System includes vertical system and electroblotting           |
| EL2402    | EL2452    | EL2502     | Blotting System includes tank, 4 cassettes fibre pads and cooling pack          |
| EL2404    | -         | -          | Gel Tank and Blotting unit  |
| EL2034    | EL2114    | EL2134     | Blotting insert including cassettes and fibre pads                              |
| EL2036    | EL2106    | EL2136     | Blotting Cassette   |
| EL2038    | EL2458    | EL2138     | Fibre Pads  |
| EL2400-HI | -         | EL2500Z-HI | Complete high intensity blotting system (Vertical system and blotting insert)   |
| EL2034-HI | -         | EL2134Z-HI | High-intensity blotting insert inc. cassettes and fibre pads                    |

## Clarit-E® Accessories

### Gradient Mixers

Ideal for Caesium, Sucrose and Gel gradients these Gradient Mixers comprise two chambers – a reservoir and a mixing chamber with an interconnecting valve. A second valve regulates the output flow from the mixing chamber. All mixers have a flat base which allows them to be placed on a magnetic stirrer. A magnetic stirring bar can be placed directly in the mixing chamber to ensure a constant gradient. The support rod allows the mixer to be fixed to a retort stand for extra stability.



### Gradient Mixers

| Catalogue Number | Description          |
|------------------|----------------------|
| EL2600           | 15ml Gradient Mixer  |
| EL2610           | 25ml Gradient Mixer  |
| EL2615           | 50ml Gradient Mixer  |
| EL2620           | 100ml Gradient Mixer |
| EL2625           | 500ml Gradient Mixer |

### Plate Racks

These sturdy racks are designed for safe drying and storage of glass plates. The small rack can hold up to 20 x 2mm thick plates while the larger rack can accommodate up to 10 x 5mm thick glass plates.



### Plate Racks

| Catalogue Number | Description                                |
|------------------|--|
| EL2630           | Mini Glass Plate Rack for 20 x 2mm plates  |
| EL2640           | Large Glass Plate Rack for 10 x 5mm plates |

## Gel Staining/Blot Boxes

The ideal accessory for incubating blots or staining gels.

The smallest box has dimensions of 9.1 x 6.6cm and a capacity for 3-5ml of solution and is perfect for incubating cut blot strips.

The next box in the range holds 6-10ml of solution and is appropriate for mini gels and blots up to 11.7 x 8.9cm.

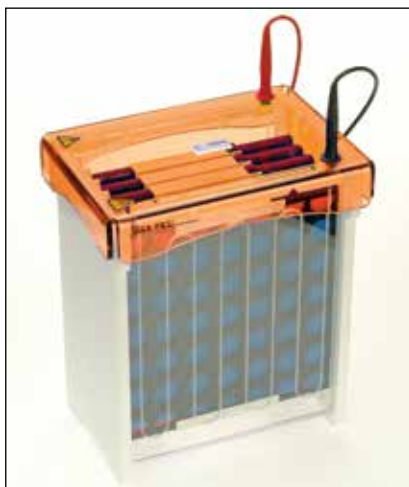
Two larger boxes, available in single packs, can be used for staining gels or incubating blots up to 12 x 12cm or 20 x 16.5cm respectively.

### Blot boxes

| Catalogue Number | Description               | Pack Size |
|------------------|---------------------------|-----------|
| EL9082           | Gel/Blot box 9.1 x 6.6cm  | 10        |
| EL9084           | Gel/Blot box 11.7 x 8.9cm | 10        |
| EL9086           | Gel/Blot box 12 x 12cm    | Each      |
| EL9088           | Gel/Blot box 20 x 16.5cm  | Each      |

## Clarit-E Tank Sub Electroblotters

- Ideal for wet electroblotting of proteins – Western blotting
- Up to five gel blot cassettes utilised at any one time
- Hinged cassettes for added convenience
- Accommodates gel thicknesses from 0.25 up to 3mm



Tank Sub Electroblotters offer a combination of increased capacity with money saving features. Both units, Mini 10 x 10cm and Maxi 20 x 20cm, have increased capacity over standard systems. This is especially useful in high throughput laboratories.

A uniform electric field is provided by a high intensity coiled electrode and ensures uniform transfer across the blot surface. The cassette's open architecture ensures the maximum blot area allows direct transfer of current. Its rigid construction ensures contact between the gel and membrane is retained throughout the blot and an even pressure is maintained. These units are compatible with magnetic stirrers to aid heat dispersal and prevent pH drifts in the buffer due to incomplete buffer mixing. Each system includes a cooling pack to further enhance transfer efficiency by removing excess heat. This also saves on buffer for added economy.

### Technical Specifications:

|  |             |   |
|--|-------------|---|
| <b>Unit dimensions:</b><br>(W x D x H) | <b>Mini</b> | 19 x 13 x 19cm                            |
|  | <b>Maxi</b> | 24 x 16 x 26cm                            |
| <b>Max. sample capacity:</b>           | <b>Mini</b> | 5 Blots, 10 x 10cm                        |
|  | <b>Maxi</b> | 5 Blots, 20 x 20cm<br>20 Blots, 10 x 10cm |
| <b>Buffer volume:</b>                  | <b>Mini</b> | Min 1400ml; Max 1500ml                    |
|  | <b>Maxi</b> | Min 4300ml; Max 6000ml                    |

### Tank Sub Electroblotters

| Catalogue Number | Description  |
|------------------|--|
| EL2412           | Electro Blot Mini, 10 x 10cm System for five cassettes, with tank and lid, 5 x Cassettes, 12 x fibre pads and cooling pack |
| EL2512           | Electro Blot Maxi, 20 x 20cm System for five cassettes, with tank and lid, 5 x cassettes, 12 x fibre pads and cooling pack |
| EL2036           | Tank Blot Mini Cassette  |
| EL2038           | Fibre Pads - pack of 6 for Vertical Mini   |
| EL2136           | Tank Blot Maxi Cassette  |
| EL2138           | Fibre Pads - pack of 6 for Vertical Maxi   |

## Clarit-E Semi-Dry Electroblotters



- Rapid transfer times
- Western, Southern and Northern Blots
- Economic Transfers due to very low buffer volumes
- Screw down lid – Gels from 0.25 up to 10mm thick can be blotted

These Semi-Dry Blotters offer rapid transfer times for DNA, RNA and protein blotting - typically 15 to 30 minutes. All units can be used for all types of blotting via uncomplicated set up procedures. Each unit is compatible with their respective Clarit-E vertical gel system. The electrodes, comprising platinum coated anode and stainless steel cathode, will exhibit practically no corrosion and so provide many years of trouble-free use. Uniform heat dispersion across the blot sandwich ensures stable transfer times and no heat induced sample loss or transfer distortions. The two larger format systems are translucent, enabling viewing of the blot sandwich to ensure correct positioning and transfer is occurring. Electrode plates are fully separated to prevent arching or damage.

### Technical Specifications

|                                       |             |   |
|---------------------------------------|-------------|---|
| <b>Unit dimensions</b><br>(W x L x H) | <b>Mini</b> | 16 x 16 x 7cm                           |
|                                       | <b>Maxi</b> | 26 x 26 x 7cm                           |
| <b>Max. sample capacity</b>           | <b>Mini</b> | 1 Blot, 10 x 10cm                       |
|                                       | <b>Maxi</b> | 1 Blot, 20 x 20cm<br>4 Blots, 10 x 10cm |
| <b>Buffer volume</b>                  | <b>Mini</b> | 5ml                                     |
|                                       | <b>Maxi</b> | 20ml                                    |

### Semi-Dry Electroblotters

| Catalogue Number | Description                            |
|------------------|--|
| EL2460           | Semi-Dry Mini Blotter 10 x 10cm system |
| EL2465           | Semi-Dry Maxi Blotter 20 x 20cm system |



## Clarit-E® Dot and Slot Blotters



- Low cost
- Simple construction
- Easy assembly
- Alphanumeric sample identification

Four different sample number size and styles of Hybridisation Manifold are offered: 48- or 96-Well dot blotter and 24- or 48-Well slot blotters.

Typical applications include clone screening with DNA/ RNA probes in Southern/Northern blots and immunological screening with antibodies in western blots.

The units incorporate precision lapped surfaces to ensure uniform blotting membrane contact and a leak-proof gasket. These prevent lateral transfer of samples – smudging – by ensuring that a complete vacuum is formed. Six thumbscrews ensure even and tight sealing for fast sample suck down.



### Technical Specifications:

| Model                          | EL2448                          | EL2496                | EL2524                 | EL2548                 |
|--------------------------------|---------------------------------|-----------------------|------------------------|------------------------|
| Configuration                  | 3 x 16                          | 8 x 12                | 2 x 12                 | 3 x 16                 |
| Size of Well                   | 6mm dia.<br>12mm deep           | 6mm dia.<br>12mm deep | 6 x 0.5mm<br>12mm deep | 6 x 0.5mm<br>12mm deep |
| Vacuum required                | 600mg Hg 0.8 BAR with cold trap |                       |                        |                        |
| Unit dimensions<br>(W x L x H) | 60 x 95<br>x 100cm              | 60 x 105<br>x 140cm   | 60 x 74<br>x 83cm      | 60 x 95<br>x 100cm     |
| Membrane sizes<br>required     | 12.1 x 4.4cm                    | 11 x 7.4cm            | 12.1 x 4.4cm           | 12.1 x 4.4cm           |

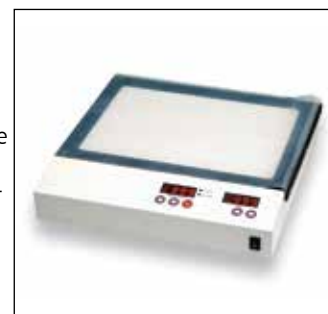
### Dot and Slot Blotters

| Catalogue Number | Description            |
|------------------|------------------------|
| EL2448           | Dot Blotter 48 sample  |
| EL2496           | Dot Blotter 96 sample  |
| EL2524           | Slot Blotter 24 sample |
| EL2548           | Slot Blotter 48 sample |

## Clarit-E® Gel Drying

### Dryer

Two sizes of cellophane sheets are available. With a drying area of 21 x 31cm, the Midi gel dryer can dry six 10 x 10cm gels or a single larger gel. The Maxi Gel Dryer with a 35 x 45cm drying area can dry twelve 10 x 10cm mini gels simultaneously.



### Gel Drying

| Catalogue Number | Description  |
|------------------|--|
| EL8830           | Cellophane sheets for gel drying (30 x 30cm) - pack of 100 |
| EL8835           | Cellophane sheets for gel drying (35 x 45cm) - pack of 100 |

## Clarit-E Maxi and Midi Power Supplies



These 3 models of power supply cater for a wide range of applications. All 3 models have 5 output pairs, and can have voltage, current or power set as the constant parameter. Loaded with pre-set programmes for instant start up, or create and save your own protocols with up to 6 steps per programme. A 2.4" TFT-LCD Screen displays the current running parameters and allows the user to browse pre-set and saved protocols.

The convenient pause/resume key allows any run to be temporarily halted for inspection of the gel and restarted from the same position. A run time extendable to a maximum 999 minutes in constant mode is also useful for overnight transfers undertaken at constant low current in wire electrode systems.

### Midi300

The Midi300 is a versatile multi-function power supply suitable for a wide range of electrophoresis applications. At 300V, 700mA and 150W the Midi300 has nearly twice the current and power of the market leading equivalent unit. Perfectly suited for use with the Clarit-E range of horizontal electrophoresis systems and Clarit-E Mini vertical electrophoresis systems.

### Maxi500

With a maximum 500V, 800mA and 300W voltage, current and power output, the Maxi500 is an excellent general-purpose power supply that fits the broadest range of electrophoresis applications. Perfect for techniques that benefit from subtle and gradual stepwise changes in the electrical parameters as the run progresses, such as DGGE and large format vertical PAGE using Clarit-E Maxi Z electrophoresis systems.

### Maxi3AMP

At 300V, 3000mA, 300W, the Maxi3AMP is designed for virtually all high current electrophoresis applications. The Maxi3AMP's higher current output capability is perfect for electroblotting units with high-intensity plate electrodes, particularly Clarit-E Maxi Z blotting system, Maxi Z vertical electrophoresis and semi dry blotting systems. Electrotransfers may be performed as timed runs in constant or programmable mode to prevent overheating and buffer depletion.

#### Technical Specifications

|                       | EL2732  | EL2742        | EL2752         |
|-----------------------|---|---------------|----------------|
|                       | Midi300   | Maxi500       | Maxi3Amp       |
| Output Voltage / Inc. | 5-300V / 1V   | 5-500V / 1V   | 5-300V / 1V    |
| Output Current / Inc. | 1-700mA / 1mA   | 1-800mA / 1mA | 1-3000mA / 1mA |
| Output Power / Inc.   | 150W / 1W   | 300W / 1W     | 300W / 1W      |
| Output Type           | Constant Voltage ; Current ; Power  |               |                |
| Output Pairs          | 5 pairs for multiple gel tanks  |               |                |
| Display               | 2.4" TFT-LCD  |               |                |
| Program               | Pre-setting; Up to 6-step, 30 programmed files                                  |               |                |
| Timer                 | Constant mode: 9999 (min) with alarm<br>Programmable mode: 999 (min) with alarm |               |                |
| Rated voltage         | 100-240V  |               |                |

#### Maxi Power Supplies

| Catalogue Number | Description                             | Application  |
|------------------|---|--|
| EL2732           | Midi300 Power Supply, 300V, 700mA, 150W | Routine horizontal electrophoresis using Clarit-E Mini, Midi and Choice<br>Vertical Electrophoresis using Clarit-E Vertical Mini   |
| EL2742           | Maxi500 Power Supply, 500V, 800mA, 300W | Routine horizontal electrophoresis using Clarit-E Mini, Midi and Choice<br>Vertical Electrophoresis using Clarit-E Vertical Mini<br>Clarit-E DGGE<br>Vertical Electrophoresis using Clarit-E Vertical Maxi Z |
| EL2752           | Maxi3AMP Power Supply, 300V, 3A, 300W   | Vertical Electrophoresis using Clarit-E MaxiZ<br>Blotting using MaxiZ blotters and semi-dry blotters   |

## Clarit-E<sup>®</sup> Mini-300 and Mini-500 Power Supplies



- Enhanced in-built safety features
- Conspicuous 3-digit LED
- Alarm function
- New wipe-clean polycarbonate housing

Superseding the MINI 150V and MINI 300V, the new Mini-300 and Mini-500 power supplies, offer many of the benefits of the MIDI power pack, for the price of a MINI unit. With enhanced features, such as a maximum constant current output of 400mA, and constant voltage up to 300V or 500V. The Mini-300 is capable of running all Clarit-E horizontal electrophoresis systems and vertical mini gel units, either on a continuous run or timed setting of up to 999 minutes.

The Mini-500 is also suitable to run the Mini Wide and Maxi Vertical units.

The user-friendly interface of the Mini-300 and 500 means adjustment in 1V and 1mA increments is easy, making it perfect for separations where precise settings are required.

Both Mini units have two pairs of parallel power terminals, which can run two electrophoresis units simultaneously, and combined with their ultra-compact size, can save time and bench space. A dual voltage rating ensures full portability, and allows easy transportation between laboratories irrespective of their geographical location.

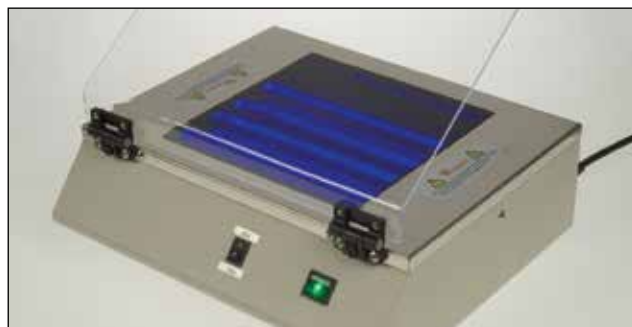
### Technical Specifications

| Mini              | EL2705   | EL2707   |
|-------------------|----------|----------|
| <b>Voltage</b>    | 10-300V  | 10-500V  |
| <b>Current</b>    | 10-400mA | 10-400mA |
| <b>Max. Power</b> | 60W      | 120W     |

### Mini-300 & Mini-500 Power Supplies and Accessories

| Catalogue Number | Description                              | Pack Size |
|------------------|--|-----------|
| EL2705           | Mini-300 Power supply, 300V, 400A, 60W   | Each      |
| EL2707           | Mini-500 Power supply, 500V, 400mA, 120W | Each      |
| EL2701           | Power supply adapters, 4mm to 4mm        | 2         |
| EL2702           | Power supply adapters, 4mm to 2mm        | 2         |
| EL2703           | Power supply adapters, 2mm to 4mm        | 2         |

## Clarit-E Transilluminators



- Three wavelength options for added flexibility and convenience: 254/312/365nm
- Two dual-wavelength models
- Long life filter in two size options
- High efficiency reflector
- Hi/Lo intensity switch
- Fast start up

Available in single and dual wavelength formats, in 21 x 21cm and 21x26cm sizes, our transilluminators are supplied either as stand-alone units or with the gel documentation system, as part of a fully integrated system. With a large surface area, each transilluminator serves as the perfect workstation for viewing and working with fluorescently-stained protein and nucleic acid gels.

Standard features include a high/low intensity safety switch and an efficient starter that allows each of the six 8 Watt UV tubes to energise quickly without flickering, prolonging the working life of the UV tubes. Special filter glass minimises unwanted background light. All of these features maximise contrast and sensitivity, allowing even the faintest fluorescent gels to be viewed. Two dual-wavelength models offer added flexibility and convenience.

### Technical Specifications

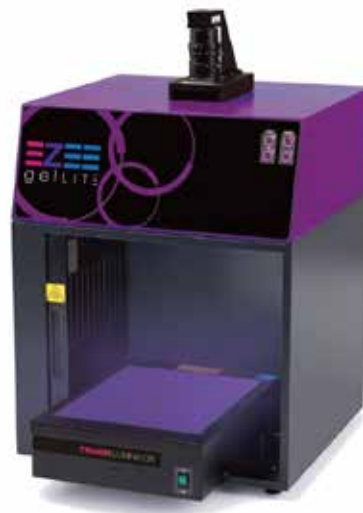
|   | Small            | Large            |
|---|------------------|------------------|
| <b>Filter size</b>                        | 21 x 21cm        | 26 x 21cm        |
| <b>Light source</b>                       | 8W x 6 tubes     | 8W x 6 tubes     |
| <b>UV resistant plastic cover (W x D)</b> | 33 x 25cm        | 33 x 25cm        |
| <b>Unit dimensions (W x L x H)</b>        | 34 x 29.5 x 10cm | 34 x 29.5 x 10cm |

### Transilluminators

| Catalogue Number | Description                                     |
|------------------|---|
| EL4150           | UV Transilluminator small, 21 x 21cm, 254nm     |
| EL4160           | UV Transilluminator small, 21 x 21cm, 312nm     |
| EL4170           | UV Transilluminator small, 21 x 21cm, 365nm     |
| EL4200           | UV Transilluminator small, 21 x 21cm, 254/365nm |
| EL4210           | UV Transilluminator small, 21 x 21cm, 254/312nm |
| EL4230           | UV Transilluminator large, 26 x 21cm, 254nm     |
| EL4240           | UV Transilluminator large, 26 x 21cm, 312nm     |
| EL4250           | UV Transilluminator large, 26 x 21cm, 365nm     |
| EL4260           | UV Transilluminator large, 26 x 21cm, 254/365nm |
| EL4270           | UV Transilluminator large, 26 x 21cm, 254/312nm |

## gelLITE Documentation System

- 5 megapixel camera with 16 bit image depth
- Image all commercial DNA stains and coloured protein stains
- Optional blue and white light converters
- Free genePIX software for acquisition and analysis
- Full manual control of camera focus and zoom
- Small benchtop footprint



A compact and convenient system for documentation of agarose gels and stained protein gels. gelLITE offers an economic and effective solution for agarose gel imaging. The manually controlled camera zoom and focus provides users complete control of their imaging, while intuitive genePIX acquisition software enables a fast and efficient workflow.

### Convenient

A 302nm UV transilluminator enables imaging of large format agarose gels or stained protein gels up to 20 x 20 cm. The UV transilluminator also slides out from the main body of the system allowing gel extraction of DNA fragments.

### Sensitive

A 5 Megapixel camera gives excellent low light sensitivity for clear resolution of closely spaced DNA bands and ensures even low levels of fluorescence are detected.

### Intuitive

genePIX acquisition software is included free of charge and uses application based work flows to simplify gel imaging.

### Accurate

geneQUANT analysis software features automated lane and band detection, pre-loaded DNA ladder standards for simple quantification and automated report creation for documentation of results perfect in a GLP environment.

### Technical Specifications

| Camera                     |                         |
|----------------------------|-------------------------|
| Sensor                     | 1/3 Inch                |
| Resolution                 | 5 Million Pixels        |
| Image Depth                | 12/16 Bit               |
| Greyscales                 | 4,096/65,536            |
| Dynamic Range              | 3.6-4.8                 |
| Maximum Viewing Area       | 20 x 20cm               |
| Illumination               |                         |
| White EPI Overhead         | Yes                     |
| UV Transilluminator        | 302 NM                  |
| Converters                 |                         |
| UV/Visible Light Converter | Optional                |
| UV/Blue Light Converter    | Optional                |
| Software                   |                         |
| GenePIX Image Capture      | Yes                     |
| Data Types                 | SGD, BMP, TIFF and JPEG |
| GeneQUANT Image Analysis   | Yes                     |
| Size                       |                         |
| Dimensions (H X D X W) CM  | 62 x 37.5 x 40          |

| Catalogue Number | Description   |
|------------------|---|
| EL8000           | gelLITE Gel Documentation System with 302nm UV transilluminator and UV imaging filter   |
| EL8001           | gelLITE Gel Documentation System with 302nm UV transilluminator, white light converter screen and UV imaging filter                 |
| EL8002           | gelLITE Gel Documentation System with 302nm UV transilluminator, white light and blue light converter screens and UV imaging filter |
| EL8003           | gelLITE Gel Documentation System and blue light converter screen  |



## Clarit-E® Gel Documentation System

- 18 Megapixel digital camera with improved high-sensitivity CMOS sensor and processor
- Image visualised within a large 8" TFT colour monitor
- Light weight compact hood with easy access door and built-in inner lights
- Safety switches disconnect the UV source when the easy access door is opened
- Computer-free operation
- Available on its own with camera and darkroom, or as a complete gel documentation system with transilluminator, either with or without software and wireless memory card



Now upgraded to a new 18 megapixel digital camera with improved high-sensitivity CMOS sensor and the latest image processor to guarantee superb resolution, the Clarit-E Gel Documentation System is the researcher's choice for a simple ultra-compact gel documentation system that meets constraints in both budget and space within the laboratory. A large 8" TFT screen enables images, including agarose and fluorescent gels, colorimetric gels, autoradiography film and blotting membrane, to be captured in colour, clearly and easily. The system is computer-free and supplied with a 4GB storage card and 55mm ethidium bromide filter as standard, while an optional SYBR filter is also available. Files are saved onto the 4GB storage card in RAW, TIFF-RGB and JPEG formats and may be transferred to computer for analysis with the highly recommended TotalLab 1D software.

### Technical Specifications

|                                     |   |
|-------------------------------------|---|
| <b>Camera Type</b>                  | Large APS-C CMOS sensor                     |
| <b>Effective Pixels</b>             | 18 megapixels                               |
| <b>Maximum Aperture</b>             | f/3.5-5.6                                   |
| <b>Shutter Speed</b>                | 30-1/4000 sec. (total range)                |
| <b>Filters</b>                      | +3 Close up and EtBr; optional SYBR green   |
| <b>Storage Media</b>                | 4GB memory card; optional Wi-Fi memory card |
| <b>Computer Interface</b>           | Hi-Speed USB (Mini-B compatible)            |
| <b>Video Out</b>                    | NTSC/PAL                                    |
| <b>Darkroom: Multi-power Source</b> | For camera, inner white LED, TFT screen     |
| <b>Inner White Light</b>            | 2 x 3W LED                                  |
| <b>Safety Device</b>                | Safety door switch                          |
| <b>Weight &amp; Dims</b>            | 6.1kg; 29 x 22 x 32cm                       |
| <b>Voltage Rating</b>               | 110 ~ 220V                                  |
| <b>Screen: Resolution</b>           | 600 x 800 pixels                            |
| <b>Brightness</b>                   | 350 cd/mm <sup>2</sup>                      |
| <b>Constant Ratio</b>               | 300 : 1                                     |
| <b>Display Mode</b>                 | NTSC / PAL / SECAM mode, auto switching     |

### Gel Documentation System

| Catalogue Number | Description   |
|------------------|---|
| EL4000           | Gel Doc System, including 18 megapixel digital camera, camera adaptor, 8" TFT colour screen, ethidium bromide filter, camera hood |
| EL4020           | Gel Doc System with UV Transilluminator, 254nm  |
| EL4010           | Gel Doc System with UV Transilluminator, 312nm  |
| EL4030           | Gel Doc System with UV Transilluminator, 365nm  |
| EL4040           | Gel Doc System with UV Transilluminator, 254/312nm  |
| EL4050           | Gel Doc System with UV Transilluminator, 254/365nm  |
| EL4080           | Ethidium Bromide Filter   |
| EL4090           | SyBr Green Filter   |
| EL4072           | Thermal Printer with USB connection   |
| EL4075           | Replacement Paper for Thermal Printer   |
| EL4002*          | Gel Doc System with ID analysis software  |

\* Software can be included with any gel doc system - please enquire for pricing

\*\* Please check for latest camera specifications

## Gel Loading Tips

Gel Loading tips enable efficient dispensing of microlitre samples into particularly narrow wells of polyacrylamide gels. They are available as 0.57mm round orifice or 0.17mm and 0.37mm flat orifice tips.

The long thin capillary section of each tip fits perfectly into horizontal electrophoresis gel wells and also between the gel comb teeth of vertical gel plates. This enables precise and accurate loading of microlitre sample volumes of up to 200µl, depending on the nominal volume of the selected tip

### Tips

| Catalogue Number | Description                              |
|------------------|--|
| LW1103           | 0.5-10µl Gel Tip Loose NS                |
| GL01037NTR       | Tip Gel Loading 10µl Flt 0.37mm Rack NS  |
| GL01057NTR       | Tip Gel Loading 10µl Rnd 0.57mm Rack NS  |
| GL01017NTR       | Tip Gel Loading 10µl Flt 0.17mm Rack NS  |
| GL01017NTRS      | Tip Gel Loading 10µl Flt 0.17mm Rack St  |
| GL20037NTRS      | Tip Gel Loading 200µl Flt 0.37mm Rack St |
| GL01037NTRS      | Tip Gel Loading 10µl Flt 0.37mm Rack St  |
| GL20017NTRS      | Tip Gel Loading 200µl Flt 0.17mm Rack St |
| GL20057SNTR      | Tip Gel Ld 200µl Rnd SB 0.57mm Rk NS     |
| GL20017NTR       | Tip Gel Loading 200µl Flt 0.17mm Rack NS |
| GL20037NTR       | Tip Gel Loading 200µl Flt 0.37mm Rack NS |
| GL20057NTR       | Tip Gel Loading 200µl Rnd 0.57mm Rack NS |
| GL20057NTRS      | Tip Gel Loading 200µl Rnd 0.57mm Rack St |
| GL01057NTRS      | Tip Gel Loading 10µl Rnd 0.57mm Rack St  |
| GL20057SNTRS     | Tip Gel Ld 200µl Rnd SB 0.57mm Rk St     |

## Buffers

- Save Time
- Reduce opportunities for error
- Allow high quality staff to be used more effectively
- Guaranteed consistent reagents
- Reduce exposure to hazardous materials
- The products are supplied as concentrates for simple dilution

In electrophoresis a wide range of buffers and reagents are required in addition to the high quality gel media now available. These reagents must be of at least equal quality to the separation medium in use. Alpha Laboratories can offer a select range of convenience buffers. Without having to weigh, mix and adjust pH, convenience products avoid the simple errors, which can mean the loss of complete experiments due to the tedious nature of preparing routine solutions.

The specifications offer a high degree of experimental security in laboratory work across a wide range of scientific disciplines. This means they satisfy the exacting demands of modern science and are ideal for use in electrophoresis. Purposefully developed and specified for these particular applications. They guarantee the kind of results expected with high quality chemicals.

All these features mean these products are essential for the modern laboratory.

## TAE/TBE Buffers

These buffers are widely used in the preparation of nucleic acid electrophoresis gels. All convenience buffers are formulated with 18 Megohm Water and 0.2 Micron Filtration.

TAE Buffer (50x) is a concentrated solution of 2M Tris-Acetate and 100mM Sodium EDTA in distilled/deionised water (pH 8.3 at 1x concentration).

TBE Buffer is available as a 10x concentrated buffer solution of Tris-Borate-EDTA in distilled/deionised water, containing 0.089M Tris base, 0.089M boric acid (pH8.3) and 2mM Na<sub>2</sub>EDTA.

| TAE/TBE Buffers  |   |
|------------------|---|
| Catalogue Number | Description   |
| 344-07511        | Tris-borate-EDTA TBE Buffer 10x Concentrate 1L Dojindo Wako         |
| 203-19141        | 1x TAE Tris-acetate-EDTA Buffer 5L Wako                             |
| 313-90035        | Tris-acetate-EDTA TAE Buffer 50x Concentrate 500ml Nippon Gene Wako |



## SDS Solution

Alpha Laboratories SDS solution (10%) is formulated using the highest quality SDS, that has been further purified to remove contaminants, which can interfere with spectro-photometric analysis and cause nonspecific binding. The purity of this product ensures that reproducible protein molecular weight measurements can be made with confidence, and optimizes activity recovery in enzyme purification procedures. The convenient pre-prepared solution eliminates the discomfort and hazards of working with powdered SDS.

| SDS Solution     |   |
|------------------|---|
| Catalogue Number | Description   |
| 311-90271        | 10% Sodium Dodecyl Sulphate SDS Solution 100ml Wako                 |
| 313-90035        | Tris-acetate-EDTA TAE Buffer 50x Concentrate 500ml Nippon Gene Wako |

## Tracking Dyes for Electrophoresis

Tracking dyes are routinely used in both protein and nucleic acid electrophoresis to monitor the progress of electrophoresis and indicate at what point the gel should be stopped. Generally they are added to the sample prior to loading on to the gel (loading buffer). Alpha Laboratories offers a convenient ready-made DNA loading buffer.

## Loading Buffer

| Loading Buffer   |  |
|------------------|--|
| Catalogue Number | Description  |
| 313-90111        | Loading Buffer DNA electrophoresis 10ml Wako                         |
| 316-90341        | 2 x DGGE Loading Buffer Electrophoresis sample preparation 10ml Wako |

## Triple Loading Buffer

With three tracking dyes (Bromophenol Blue, Xylene Cyanol, and Orange G) Triple Dye Loading Buffer (6x) is a nondenaturing loading buffer for native polyacrylamide and agarose gel applications. In normal type agaroses in 0.5x TBE the dye mobility is broadly unaffected over the range of 0.5 to 1.4% w/v.

The dyes run as follows (linear double stranded DNA);

|                  |       |
|------------------|-------|
| Orange G         | 50bp  |
| Bromophenol blue | 300bp |
| Xylene cyanol    | 4kbp  |

Triple dye loading buffer contains 50% (w/v) sucrose and 40mM Tris base in deionized, distilled water.

| Triple Loading Buffer |  |
|-----------------------|--|
| Catalogue Number      | Description  |
| 317-90251             | 6 x Loading Buffer Orange D Electrophoresis sample preparation 3x 1ml Wako   |
| 313-90351             | 6 x Loading Buffer Double Dye Electrophoresis sample preparation 3x 1ml Wako |
| 314-90261             | 6 x Loading Buffer Triple Dye Electrophoresis sample preparation 3x 1ml Wako |



## DNA Markers

Lambda phage digests should be heat treated before use for 5 min at 65°C with salt (> 10 mmol / l) or EDTA (> 5 mmol / l) to prevent annealing of fragments.

These markers are formulated to run accurately and to provide crisp band patterns.

A range of DNA Molecular weight markers that set size standards for linear double stranded DNA.

Plasmid digests for low molecular weight ranges, lambda phage and T4 digests for higher molecular weight ranges.

All markers require addition of loading buffer and dye of your choice except for EL3000 and EL3010 that include loading dye and are ready to use.

| DNA Markers      |  |
|------------------|--|
| Catalogue Number | Description  |
| 316-00454        | DNA Molecular Weight Marker Ladder Electrophoresis 1 lambda DNA Hind digest 120µg Wako             |
| 312-00576        | DNA Molecular Weight Marker Ladder Electrophoresis 3 lambda DNA Hind EcoR I digest mix 5x80µg Wako |
| 314-01491        | DNA Molecular Weight Marker Ladder Electrophoresis 9 phiX174 phage DNA Hinf I digest 15µg Wako     |
| 319-00564        | DNA Molecular Weight Marker Ladder Electrophoresis 2 lambda DNA Hind EcoR I digest 80µg Wako       |
| 318-00676        | DNA Molecular Weight Marker Ladder Electrophoresis 5 phiX174 phage DNA Hinc II digest 15µg Wako    |
| 315-00664        | DNA Molecular Weight Marker Ladder Electrophoresis 4 phiX174 phage DNA Hae III digest 15µg Wako    |
| 315-03981        | DNA Molecular Weight Marker Ladder Electrophoresis 7 GT T4 GT7 DNA Bgl I 10µg Wako                 |
| 318-03993        | DNA Molecular Weight Marker Ladder Electrophoresis 8 GT T4 GT7 DNA Bgl II 10µg Wako                |
| 311-00666        | DNA Molecular Weight Marker Ladder Electrophoresis 4 phiX174 phage DNA Hae III digest 5x15µg Wako  |
| 315-00566        | DNA Molecular Weight Marker Ladder Electrophoresis 2 lambda DNA Hind EcoR I digest 5x80µg Wako     |
| 312-00456        | DNA Molecular Weight Marker Ladder Electrophoresis 1 lambda DNA Hind digest 5x120µg Wako           |
| 312-03991        | DNA Molecular Weight Marker Ladder Electrophoresis 8 GT T4 GT7 DNA Bgl II 5x10µg Wako              |
| 315-03263        | DNA Molecular Weight Marker Ladder Electrophoresis 11 pUC19 plasmid DNA Msp I digest 5x15µg Wako   |
| 317-01501        | DNA Molecular Weight Marker Ladder Electrophoresis 10 pBR322 plasmid DNA Msp I digest 15µg Wako    |
| 319-00966        | DNA Molecular Weight Marker Ladder Electrophoresis 6 lambda DNA Sty I 80µg Wako                    |
| 312-00674        | DNA Molecular Weight Marker Ladder Electrophoresis 5 phiX174 phage DNA Hinc II digest 5x15µg Wako  |
| 313-01503        | DNA Molecular Weight Marker Ladder Electrophoresis 10 pBR322 plasmid DNA Msp I digest 5x15µg Wako  |
| 311-03983        | DNA Molecular Weight Marker Ladder Electrophoresis 7 GT T4 GT7 DNA Bgl I 5x10µg Wako               |
| 313-00964        | DNA Molecular Weight Marker Ladder Electrophoresis 6 lambda DNA Sty I Wako                         |
| 310-01493        | DNA Molecular Weight Marker Ladder Electrophoresis 9 phiX174 phage DNA Hinf I digest 5x15µg Wako   |
| 316-00574        | DNA Molecular Weight Marker Ladder Electrophoresis 3 lambda DNA Hind EcoR I digest mix 80µg Wako   |
| 319-03261        | DNA Molecular Weight Marker Ladder Electrophoresis 11 pUC19 plasmid DNA Msp I digest 15µg Wako     |
| 311-90075        | EDTA Ethylenediaminetetraacetic acid 0.5 M Solution 500ml Wako                                     |
| 347-07481        | EDTA Ethylenediaminetetraacetic acid 0.5 M Solution 1L Wako  |

# alpha laboratories

supplying quality to science



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